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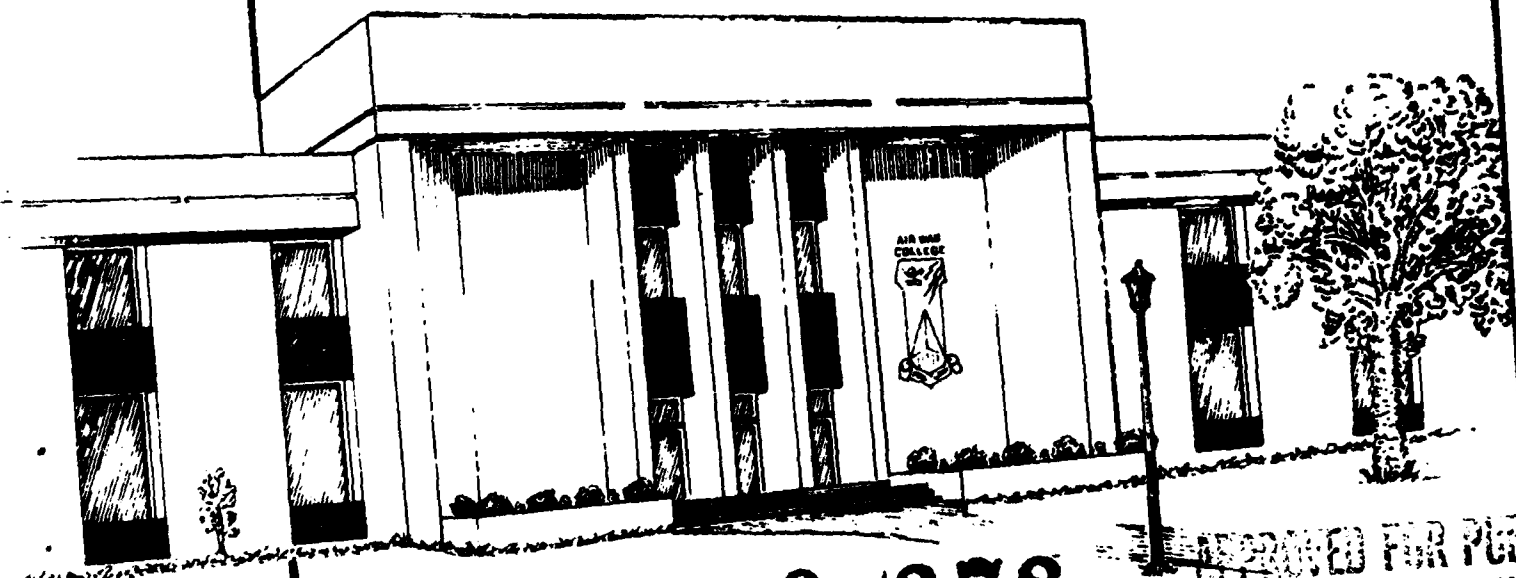
RESEARCH REPORT

IMPLICATIONS FOR FUTURE AIR FORCE RESERVE
MEDICAL UNIT NURSE AUTHORIZATION BUILDS

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MEDICAL UNIT NURSE AUTHORIZATION BUILDS

by

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A RESEARCH REPORT SUBMITTED TO THE FACULTY

IN

FULFILLMENT OF THE RESEARCH

REQUIREMENT



Research Advisor: Colonel James E. Pierce

MAXWELL AIR FORCE BASE, ALABAMA

May 1988

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AIR WAR COLLEGE RESEARCH PAPER ABSTRACT

TITLE: Implications for Future Air Force Reserve Medical Unit Nurse Authorization Builds

AUTHOR: Deirdrie D. Campbell, Lieutenant Colonel, USAFR

Examines Air Force Reserve flight nurse officer authorization builds Fiscal Year 1982 through Fiscal Year 1986 for trends and considerations which could influence plans and expectations for future build endeavors.

Basically presents a retrospective narrative analysis of statistical data regarding growth in Air Force Reserve flight nurse authorizations, gains and losses in flight nurse manning, disposition of losses, reasons for losses to non-participatory status, and a summary of literature addressing the "nurse shortage" today and in the future.

Offers a discussion of significant findings, an answer to the posed study question, and recommendations directed toward future successful specific or overall Air Force Reserve nurse manpower builds.

... impact on overall manning; military medical personnel nurses; etc.

BIOGRAPHICAL SKETCH

Lieutenant Colonel Deirdrie Douville Campbell (BS in Nursing, University of California, Los Angeles; MA in Social Ecology, University of California, Irvine) has been interested in military nursing since 1959 and a member of the Air Force Reserve since first assigned in 1972 to the 68th Aeromedical Evacuation Squadrons, Norton Air Force Base, California. In her civilian life, Colonel Campbell spent twenty years with the Newport-Mesa Unified School District as a school nurse and then as Health Services Coordinator. She is a graduate of the Air Force Flight Nurse Course and the Air Command and Staff College residence program. She served a four year controlled tour as a nursing service administrator, Office of the Command Surgeon, Headquarters, Air Force Reserve, Robins Air Force Base, Georgia. Colonel Campbell is a graduate of the Air War College, Class of 1988.

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CHAPTER I

INTRODUCTION

Background

Air Force Reserve medical personnel have augmented active duty medical forces during periods of mobilization beginning with the Korean War and peaking during the Vietnam Conflict. Air Force Reserve nurses have been a significant part of this medical program and, in number, have been greatly affected by the flux of authorizations.

Air Force Reserve Medical Officer Authorizations				
Specialty	1972*	1980	1982**	1986
Medical Corps	834	239	305	463
Dental Corps	190	86	76	108
Medical Service Corps	428	225	222	292
Nurse Corps	1500	826	1069	1804
Biomedical Science Corps	60	29	93	171
Veterinary Corps	133	-	-	-
TOTAL	3145	1405	1765	2838

*Peak year for manpower authorizations during Vietnam War.

**First year authorizations increased significantly after post-Vietnam deactivation of medical units.

Table 1 (7:15)

In 1972 nurses were 47% of the almost 3,150 Air Force Reserve medical unit officer positions authorized. After 1972, the number of Reserve medical officer personnel authorizations began to decline. By 1980 there were slightly more than 1400 officer authorizations in the Air Force Reserve medical unit program; approximately 826 or 59% of the designated positions were for nurses. 98% of these nurse positions were filled.

Beginning in 1980, the Department of Defense started to take a new look at its active and reserve military components in light of changing technologies and a reexamination of the threat. Not only was technology affecting war fighting capabilities, it was also changing the outcome of war fighting. Technology was changing the number and the status of survivable casualties.

In addition to numerous other findings, the Department of Defense estimated that the United States military services would need 47,000 additional doctors, nurses, and medics in time of war. The estimate was not firm since it became apparent that each service used different criteria to determine medical requirements and that the methods for tracking medical personnel leaving the services and entering the "reserve pool," were far from accurate. Despite the differences and the inaccuracies, it was agreed that in the event of mobilization, the United

State= military was short in reserve medical manpower.

It was also determined that the evolution of technology had a direct impact upon the nature of training requirements and the achievement of medical readiness. The Department of Defense moved to correct deficiencies in three primary areas: manpower, training, and equipment.

For the Air Force Reserve medical program, the most apparent and immediate move was that of increasing manpower. Fiscal Year 1982 was the first year Air Force Reserve medical manpower authorizations increased significantly since the post-Vietnam deactivation of medical units.

By 1986 there were approximately 2830 officer authorizations in the Air Force Reserve medical program; 1810 or 64% of these positions were designated for nurses.

Late 1986, the Department of Defense reaffirmed its concern with military medical readiness. Included in the effort to remedy medical manpower shortfalls was an initiative to increase the number of nurse authorizations in the United States military reserves. The Department of Defense initiative called for the number of nurse officer authorizations in the Air Force Reserve to reach to 5,000 by the end of Fiscal Year 1990. (15:194)

Research Question

How realistic is the Department of Defense initiative to increase nurse authorizations in the Air Force Reserve to 5,000 by the end of Fiscal Year 1990?

Purpose of Study

The purpose of this study is to look at the recent authorization builds and the literature to determine if the Department of Defense initiative for 5,000 Air Force Reserve nurses by Fiscal Year 1990 is realistic. Through an analysis of these recent builds and relevant literature, it is anticipated that the findings will either support the attainability of the initiative goal or will, at least, identify indicators for the establishment of realistic goals for future build endeavors.

Study Overview

This study looks at the Air Force Reserve nurse officer authorization builds Fiscal Year 1982 through Fiscal Year 1986 for trends and considerations which could influence plans and expectations for future builds.

In compiling information, it was decided to focus on the "flight nurse" segment of the Air Force Reserve

nurse population. There were three reasons for this decision: (1) this specific group provided a more manageable number for analysis; and (2) flight nurses require initial and ongoing training that involve more significant costs and management considerations than other nursing specialties authorized in the Air Force Reserve medical program (findings would offer more significant usefulness); (3) during the period studied, flight nurses were 58-60% of the authorized nurse specialties.

CHAPTER II offers a narrative review of the Air Force Reserve aeromedical evacuation unit program build and a retrospective narrative analysis of flight nurse authorizations Fiscal Year 1982 through Fiscal Year 1986. CHAPTER III presents a retrospective narrative analysis comparing the number authorized and the number actually assigned to flight nurse positions during the same period.

CHAPTER IV provides a retrospective narrative analysis and assessment of flight nurse gains and losses for Fiscal Year 1984 through Fiscal Year 1986. CHAPTER V will present an indepth retrospective narrative assessment of unit assigned flight nurse losses that occurred during Fiscal Year 1986.

Looking beyond the dynamics of a Air Force Reserve nurse manpower build in the past and for the future, there are indications today of a "nursing shortage" in the United

States. This phenomenon is seen as a critical factor in any future successful nurse build. CHAPTER VI provides summary information drawn from a literature search directed at this subject.

The final chapter offers summary discussion of significant findings, an answer to the posed study question, and recommendations applicable to future specific or overall Air Force Reserve nurse manpower build endeavors.

CHAPTER II

THE BUILD

Fiscal Year 1982 Through Fiscal Year 1986

The Air Force Reserve (AFRes) has been tasked in each phase of the aeromedical evacuation worldwide system, strategic, tactical, and domestic. By the end of Fiscal Year (FY) 1986 Air Reserve Forces provided 93% of the total Air Force aeromedical evacuation capability. This figure is a combination of the 11% capability contributed by the Air National Guard (ANG) and the 72% capability contributed by the Air Force Reserve (AFRes). (27:20)

This military medical specialty requires uniquely trained unit personnel to provide in-flight medical care and related administrative and ground support activities. In addition to flight nurses, these reserve units are authorized aeromedical technicians, operations officers, administrative specialists, medical material specialists, and, in some larger units, ground communication support personnel. (18:1422)

The numerical data presented in this chapter regarding the AFRes flight nurse authorization build FY 1982 through FY 1986 has been drawn from a series (22; 23; 24 25; 25) of quarterly reports titled Pertinent Facts

About The Unit Reserve Category 'A' Medical Program

compiled by the Office of the Command Surgeon,
Headquarters, Air Force Reserve, Robins Air Force Base,
Georgia. A comprehensive aggregate of this information is
presented as Appendix A - "End of Year Flight Nurse
Authorizations in the Air Force Reserve Aeromedical
Evacuation Units FY 82, FY 83, FY 84, FY 85, and FY 86."

Data

Strategic Aeromedical Evacuation

AFRes strategic aeromedical evacuation squadrons
are tasked to enhance active duty strategic aeromedical
evacuation crews in the inter-theater evacuation of
casualties during wartime and to support similar patient
movement during peacetime.

In FY 1982 there were six AFRes strategic
aeromedical evacuation squadrons (AES):

1. 31 AES, Charleston Air Force Base,
South Carolina
2. 40 AES, McChord Air Force Base, Washington
3. 65 AES, Travis Air Force Base, California
4. 68 AES, Norton Air Force Base, California
5. 69 AES, McGuire Air Force Base, New Jersey
6. 72 AES, McGuire Air Force Base, New Jersey

These units were authorized 46 flight nurse positions each in FY 1982; by the end of FY 1986, there were 105 flight nurse authorizations per squadron. This was a 133% growth in flight nurse authorizations.

The original goal had been for each of these squadrons to provide 55 aeromedical crews. In light of an aircraft conversion occurring in 1986 at Andrews Air Force Base, it was decided to take a total of 30 strategic aeromedical evacuation crew allocations (five from each existing strategic aeromedical evacuation unit) and to integrate them into the converting 60 AEF located at Andrews. Flight nurse authorizations and other personnel allocations in the strategic aeromedical evacuation squadrons were realigned to provide 50 aeromedical evacuation crews from each squadron.

The 60 Aeromedical Evacuation Flight - Squadron

Effective 1 July 1986, the 60 AEF at Andrews Air Force Base, became the 60 AES and began to train for a strategic missions in C-141s. This particular unit had 15 flight nurse authorizations in FY 1982 as tactical aeromedical evacuation flight; as a strategic aeromedical evacuation squadron, this unit had 64 flight nurse positions authorized by the end of FY 1986. This particular unit experienced a 326% growth in flight nurse

authorizations; this growth is reflective of a mission change in addition to the overall growth which occurred in the AFRes medical program.

Tactical Aeromedical Evacuation

AFRes tactical aeromedical evacuation flights and squadrons are wartime tasked to enhance active duty tactical aeromedical evacuation crews in the support of ground forces within the combat zone by flying casualties to medical treatment facilities outside the combat zone.

Squadrons

In FY 1982 and in FY 1986 there were three tactical aeromedical evacuation squadrons (AES):

1. 33 AES, Greater Pittsburgh International
Airport, Pittsburgh, Pennsylvania
2. 34 AES, Kelly Air Force Base, Texas
3. 74 AES, Westover Air Force Base,
Massachusetts

In FY 1982 the 34 AES and the 74 AES were authorized 39 flight nurse positions; the 33 AES was authorized 40 flight nurse positions. By the end of FY 1986, all three units were authorized 60 flight nurse positions. This was a 50% growth in authorizations.

Flights

In FY 1982 there were nine tactical aeromedical evacuation flights (AEF). As mentioned earlier, the 60 AEF became the 60 AES; the other flights were:

1. 35 AEF, Maxwell Air Force Base, Alabama
2. 36 AEF, Richards-Gabaur Air Force Base,
Missouri
3. 45 AEF, Selfridge Air National Guard Base,
Michigan
4. 47 AEF, Minneapolis-St. Paul International
Airport, Minnesota
5. 63 AEF, Chicago-O'Hare International Airport,
(O'Hare ARFF), Illinois
6. 64 AEF, Dobbins Air Force Base, Georgia
7. 67 AEF, Rickenbacker Air National Guard Base,
Ohio
8. 70 AEF, Niagara Falls International Airport,
New York

All these flights were authorized 15 flight nurse positions in FY 1982; because of individual unit mission changes, their resultant growth was not the same. By the end of FY 1986, the 36 AEF, 45 AEF, 47 AEF, and 63 AEF had 24 flight nurse authorizations; a 60% growth. In the same period, the 35 AEF, 64 AEF, 67 AEF, and the 70 AEF had 30 flight nurse authorizations; a 100% growth.

Groups

AFRes tactical aeromedical evacuation groups are tasked to enhance active duty tactical aeromedical evacuation groups during wartime as immediate response, combat ready, support units capable of deploying on short notice anywhere in the world where tactical aircraft can land. In addition to the flight nurses and aeromedical technicians, these units have their own communication network with worldwide capability, mobile aeromedical staging facilities, liaison teams, and aeromedical evacuation control centers with resupply capabilities.

In FY 1982 and in FY 1986 there were two tactical aeromedical evacuation groups (AEG):

1. 32 AEG, Kelly Air Force Base, Texas
2. 37 AEG, McDill Air Force Base, Florida

In FY 1982 both groups were authorized 28 flight nurse positions; the the end of FY 1986 there were 35 flight nurse authorizations. This was a growth in authorizations of 25%.

Domestic Aeromedical Evacuation

The 73 AES, Scott Air Force Base, Illinois, is the only AFRes domestic aeromedical evacuation squadron. The 73 AES is tasked in peacetime and wartime to support the active duty domestic aeromedical evacuation system within

the Continental United States (CONUS). The number of flight nurse authorizations for this squadron remained constant at 36 positions FY 1982 through the end of FY 1986.

AFRes Flight Nurses Authorization Growth
By Type Aeromedical Evacuation Unit
Between FY 84 and FY 86

Type Unit	FY 82 Authorization	FY 86 Authorization	Growth Rate
Strategic Squadrons	46 per unit (276 total)	105 per unit (630 total)	133%
The 60AES	14 as AEF	64 as AES	326%
Tactical Squadrons	39/40 per unit (118 total)	60 per unit (180 total)	50%
Tactical Flights	15 per unit (120 total)	24/30 per unit (216 total)	60/100%
Tactical Groups	28 per unit (56 total)	35 per unit (70 total)	25%
Domestic Squadron	36 in unit	36 in unit	0%

Table 2

Findings

1. Between FY 1982 and FY 1986, the overall number of AFRes flight nurse authorizations for AFRes grew from 621 to 1196 flight nurse positions. This was a growth of almost 93% in flight nurse authorizations in five years.

2. By mission and type unit:

a. The number of flight nurse authorizations for each AFRes strategic aeromedical evacuation units grew from 46 in FY 1982 to 105 in FY 1986. This was a 133% growth.

b. The number of flight nurse authorizations for each AFRes tactical aeromedical evacuation squadrons grew from 39 (the 34 AES and the 74AES) and 40 (the 33 AES) in FY 1982 to 60 flight nurse positions in FY 1986; a growth of 50%.

c. The number of flight nurse authorizations in the eight AFRes tactical aeromedical evacuation flights (not including the 60 AEF) was 15 in FY 1982. By the end of FY 1986 four of the flights had 24 flight nurse authorizations, a growth of 60% in authorizations; the other four flights had 30 flight nurse authorizations, a 100% growth.

d. The number of flight nurse authorizations in the two AFRes tactical aeromedical evacuation groups was

28 in FY 1982 and was 35 in FY 1986. This was a growth of 25% in authorizations.

e. There was no change in the flight nurse authorizations in the one AFRes domestic aeromedical evacuation squadron during this time frame.

f. Although considered in the overall figure, the growth within the 60 AES was not used in the strategic or the tactical aeromedical evacuation unit figures because of the unique circumstances of that particular unit during this reference time frame.

3. Between FY 1982 and FY 1986, the rate and specific nature of AFRes flight nurse authorization growth varied by type unit and seem to also depend upon the mission of each individual unit.

CHAPTER III

THE GROWTH

Fiscal Year 1982 Through Fiscal Year 1986

In looking toward the future and the identified need to increase medical manpower resources in the United States military reserves, one should be able to establish expectations and to build plans based upon information gathered from a retrospective analysis of past build performances.

The purpose of this chapter is to present information regarding the growth trends and patterns of AFRes flight nurse officer manning (authorizations actually filled or staffed) during the AFRes medical officer build FY 1982 through FY 1986. As noted in CHAPTER I, in 1986 AFRes Nurses held 64% of the AFRes medical officer positions; flight nurses were designated for 66% of these nurse authorizations. It is anticipated that the findings of this chapter and the other chapters will contribute to realistic estimates of future growth for this particular AFRes medical resource.

As in CHAPTER II, the numerical data presented in this chapter regarding the flight nurse manning response to the authorization build FY 1982 through FY 1986 has been

drawn from a series (22; 23; 24; 25; 26) of quarterly reports titled Pertinent Facts About The Unit Reserve Category 'A' Medical Program compiled by the Office of the Command Surgeon, Headquarters, Air Force Reserve, Robins Air Force Base, Georgia. A comprehensive aggregate of this information is presented as Appendix B - "End of Year Flight Nurse Authorizations and Actual Number Assigned to Air Force Reserve Aeromedical Evacuation Units FY 82, FY 83, FY 84, FY 85, and FY 86."

Data

Strategic Aeromedical Evacuation

By the end of FY 1982 the average number of flight nurses assigned to each of the six AFRes strategic aeromedical evacuation squadrons was 50.6 for the 46 positions authorized. This figure is indicative of an overmanning policy which prevailed at the time. These units were manned at an average of 108.7%.

At the end of FY 1986 and close to the end of the significant AFRes medical build, the average number of flight nurses assigned to the six original strategic aeromedical evacuation squadrons was 98.5; the number of flight nurse positions authorized was 105. The average strategic aeromedical evacuation squadron was 93.8% manned.

The 60 Aeromedical Evacuation Flight - Squadron

As a tactical aeromedical evacuation flight the 60th was 80% manned at the end of FY 1982; as the 60 AES, this unit was 48% manned by the end of FY 1986. As noted in CHAPTER II, this particular unit had been a small tactical aeromedical flight in FY 1982 and 12 of the 15 authorized flight nurse positions were manned. It became a strategic aeromedical evacuation squadron 1 July 1986.

Tactical Aeromedical Evacuation

Squadrons

In FY 1982 there were 108 flight nurses assigned to the 118 authorizations in the three AFRes tactical aeromedical evacuation squadrons; the average manning per unit was 91.5%. By the end of FY 1986 there were 150 flight nurses assigned to total 180 authorizations held by these units; the manning average was at 83.3% per unit.

Flights

In FY 1982, the 35 AEF, 64 AEF, 67 AEF, and the 70 AEF had 15 flight nurse authorizations and averaged 16.7 flight nurses assigned to a flight; manning was at 111.6%. By the end of FY each of these four units had 30 authorizations each; the average number of flight nurses assigned to a unit was 24.5. As a group, these units were manned at 81.6%.

In FY 1982, the 36 AEF, 45 AEF, 47 AEF, and the 63 AEF had 15 flight nurses authorized per unit and an average of 16.2 flight nurses assigned; the manning average was 108%. At the end of FY 1986, the number of flight nurse authorizations per unit was 24 and the average number of flight nurses assigned was 22.2; the manning average per unit was 92.7%.

The overall manning in tactical aeromedical evacuation flights was 110% by the end of FY 1982 and was 86.5% by the end of FY 1986.

Groups

The tactical aeromedical evacuation groups were authorized 28 flight nurse positions each in FY 1982 and an average of 23 flight nurses were assigned; these units were manned at a manning average of 82%. In FY 1986, these units were authorized 35 flight nurses each and an average of 30.5 flight nurses were assigned; these units had a manning average of 87%.

Domestic Aeromedical Evacuation

In FY 1982 the 73 AES was manned at 111%; in FY 1986 the unit was manned at 100%. As noted in CHAPTER II, there had been no change in the 36 flight nurse authorizations for this unit.

AFRes Flight Nurse Manning Rates
By Type Aeromedical Evacuation Unit
At the End of FY 1982 and At the End FY 1986

Type Unit	Manning Rate % End FY 82	Manning Rate % End FY 86
Strategic Squadrons	108.7	93.8
The 60AES	80.0 (as AEF)	48.00 (as new AES)
Tactical Squadrons	91.5	83.3
Tactical Flights	16.45	86.5
- authorized 30 FNs FY86		(81.6)
- authorized 24 FNs FY86		(92.7)
Tactical Groups	82.0	87.0
Domestic Squadron	111.0	100.0

Table 3

Findings

1. In response to the AFRes medical build between FY 1982 and FY 1986, the number of flight nurses assigned grew from 642 to 1056. The overall manning percentage, however, dropped from 103% in FY 1982 to 88% in FY 1986.

2. An analysis of the information found in Appendix B indicates that between the end of FY 1982 and the end of FY 1986, there was 64% overall growth in manning (642 to 1056 flight nurses assigned). The annual rate of growth was as follows:

a. Between the end of FY 1982 and the end of FY 1983, there was 18.42% growth.

b. Between the end of FY 1983 and the end of FY 1984, there was 13.72% growth.

c. Between the end of FY 1984 and the end of FY 1985, there was 8.60% growth.

d. Between the end of FY 1985 and the end of FY 1986, there was 8.64% growth.

3. By mission and type unit:

a. The number of flight nurses assigned to strategic aeromedical evacuation squadrons in FY 1982 was 304; these units were manned at 108.7%. By the end of FY 1986 the number of flight nurses assigned to six original strategic aeromedical evacuation squadrons was 591 and the manning was at 93.8%.

b. The number of flight nurses assigned to the tactical aeromedical evacuation squadrons in FY 1982 was 108; these units were manned at 91.5%. By the end of FY 1986 the number of flight nurses assigned to these same three units was 150 and the manning was at 83.3%.

c. The number of flight nurses assigned to the tactical aeromedical evacuation flights was 132; these units were manned at 110% in FY 1982. The four flights authorized 24 flight nurses by the end of FY 1986 were manned 81.6%; the four flights authorized 30 flight nurses were manned at 92.7%. Overall, by the end of FY 1986, 187 flight nurses were assigned to these flights and the manning level was at 86.5%

d. The number of flight nurses assigned to the tactical aeromedical evacuation groups in FY 1982 was 46; these units were manned at 82%. By the end of FY 1986 the number of flight nurses assigned to these same two units was 61 and the manning level was at 87%.

e. The domestic aeromedical evacuation unit had no change in the number of authorizations between FY 1982 and FY 1986; manning levels dropped from 111% to 100%.

f. Although considered in the overall figure, the manning levels in the 60 AES were not used in the strategic or the tactical aeromedical evacuation unit figures because of the unique circumstances of that particular unit during the reference time frame.

4. It should be noted that recruiting ceilings did not exist for the Reserve medical program during the reference time frame.

5. Between FY 1982 and FY 1986, the flight nurse

manning levels appeared to respond to the increases in authorizations reflective of type unit and mission of each type unit. The overall drop in manning level percentages appears to demonstrate a "to-be-expected" lag in response to the surge nature of the AFRes nurse authorization build.

CHAPTER IV

THE ACTUAL GROWTH

Fiscal Year 1984 Through Fiscal Year 1986

As a result of extracting the retrospective data presented in CHAPTER II (and Appendix A) addressing the Air Force Reserve (AFRes) flight nurse authorization build Fiscal Year (FY) 1982 through Fiscal Year (FY) 1986, and the data presented in CHAPTER III (and Appendix B) addressing the resultant Air Force Reserve flight nurse manning (numbers actually assigned) FY 1982 through FY 1986), it was decided to examine the manning growth in more detail. By analyzing this growth, it was anticipated that the resultant findings might lead to some considerations for future nurse manpower build planning.

This chapter presents an analysis of the net and gross manning responses to the authorization build for AFRes flight nurses.

As in CHAPTER II and CHAPTER III, the numerical data presented in this chapter regarding the AFRes flight nurse authorization build and the manning response for FY 1984 through FY 1986 has been drawn from a series (24; 25; 26) of quarterly reports titled Pertinent Facts About The Unit Reserve Category 'A' Medical Program compiled by the

Office of the Command Surgeon, Headquarters, Air Force Reserve, Robins Air Force Base, Georgia.

The additional numerical data regarding "gains and losses" was determined by comparing quarterly Category A Unit/Nurse Atlas printouts (19; 20; 21) prepared by the Personnel Directorate for the Command Surgeon's Office, Headquarters, Air Force Reserve. The information presented will only focus on FY 1984, FY 1985, and FY 1986 since the specific data concerning "gains and losses" was not available for the earlier two years. A comprehensive aggregate of this information is presented as Appendix C - "Gains and Losses of Flight Nurses Actually Assigned to Air Force Reserve Aeromedical Evacuation Units Between FY 84 and FY 85 and Between FY 85 and FY 86."

Data

Strategic Aeromedical Evacuation

In the AFRes strategic aeromedical evacuation squadrons there was a flight nurse authorization increase from 90 to 104 positions in each unit and an overall increase from 540 to 624 flight nurse positions for this particular mission between FY 1984 and FY 1985. At the end of FY 1984, 476 positions were manned; at the end of FY 1985, 530 positions were manned. There was a net growth of

54 manned positions during this same period; there was a gross loss of 74 previously assigned flight nurses and a gross gain of 128 "new-to-the-squadron" nurses.

Between FY 1985 and FY 1986 there was a flight nurse authorization increase from 104 to 105 positions in each unit and an overall increase from 624 to 630 flight nurse positions for this particular mission. At the end of FY 1985, 530 positions were manned; at the end of FY 1986, 591 positions were manned. There was a net growth of 61 manned positions during this same period; there was a gross loss of 103 previously assigned flight nurses and a gross gain of 164 "new-to-the-squadron" nurses.

Between FY 1984 and FY 1986 there was an increase from 540 to 630 (or 90 new) flight nurse authorizations in the strategic aeromedical evacuation squadrons. In this same time period there was an overall net increase in flight nurse manning of 115. There was, however, a gross gain of 292 "new-to-the-squadron" nurses and a gross loss of 177 previously assigned flight nurses in this two year period.

The 60 Aeromedical Evacuation Flight - Squadron

As noted in CHAPTER II and in CHAPTER III the aeromedical evacuation unit located at Andrews Air Force Base experienced a conversion from a tactical to a

strategic mission 1 July 1986 during the reference time frame FY 1984 through the end of FY 1986.

As the 60 AEF, there was a flight nurse authorization increase from 20 to 22 positions between FY 1984 and FY 1985. This unit experienced a gross loss of two previously assigned flight nurses and a gross gain of one "new-to-the-flight" nurse for an overall net loss in manning of one position.

Between the end of FY 1985 and the end of FY 1986, as the result of the conversion, this unit had a flight nurse authorization increase from 22 to 64. During this time period the unit experienced the gross loss of five previously assigned flight nurses and the gross gain of 17 "new-to-the-unit" nurses; this newly formed strategic aeromedical evacuation unit had an overall net increase of 12 positions manned.

Between FY 1984 and the end FY 1986 this unit experienced a growth in flight nurse authorizations from 20 to 64 positions. During this same time the unit's overall net growth in manning flight nurse positions was 11; seven previously assigned nurses left the unit and 18 "new-to-the-unit" nurses were gained.

The data regarding this unit is being presented separately because of the conversion in July 1986; the numerical values, however, are included in the overall

flight nurse program totals presented in the Findings.

Tactical Aeromedical Evacuation

Squadrons

In the AFRes tactical aeromedical evacuation squadrons there was a flight nurse authorization increase from 49 to 54 positions in each unit and an overall increase from 147 to 162 flight nurse positions for this particular mission between FY 1984 and FY 1985. At the end of FY 1984, 136 positions were manned; at the end of FY 1985, 143 positions were manned. There was a net growth of seven manned positions during this same period; there was a gross loss of 27 previously assigned flight nurses and a gross gain of 34 "new-to-the-squadron" nurses.

Between FY 1985 and FY 1986 there was a flight nurse authorization increase from 54 to 60 flight nurse positions for each of the tactical aeromedical evacuation squadrons. There was an overall increase for this mission from 162 to 180 flight nurse authorizations between FY 1985 and FY 1986. At the end of FY 1985, 143 positions were manned; at the end of FY 1986, 150 positions were manned. There was a net growth of seven manned positions during this period; there was a gross loss of 29 previously assigned flight nurses and a gross gain of 36 "new-to-the-squadron" nurses.

From FY 1984 through the end of FY 1986 flight nurse authorizations in the three tactical aeromedical squadrons grew from 147 to 180; this was an increase of 33 positions. There was a combined net growth in manning of 14 flight nurses positions in these squadrons; there was a gross loss of 56 previously assigned flight nurses and a gross gain of 70 "new-to-the-squadron" nurses.

Flights

At the end of FY 1984 each of the eight AFRes tactical aeromedical flights (not including the 60 AEF/AES) were authorized 20 flight nurse positions. As a group, the flights were authorized 160 flight nurse positions; 163 of the positions were manned. At the end of FY 1985 these flights were authorized 176 positions; 173 positions were manned. Between FY 1984 and FY 1985 there was a net growth in manning of ten flight nurses; there was a gross loss of 23 previously assigned flight nurses and a gross gain of 33 "new-to-the-flight" nurses.

Between FY 1985 and FY 1986 there was a flight nurse authorization increase from 22 to 24 positions in four units and from 22 to 30 positions in the other four units. At the end of FY 1986 the flights were authorized 216 flight nurse positions; 187 positions were manned. In the four small units there was a net growth of six flight nurse positions manned; there was a gross loss of 14

previously assigned nurses and a gross gain of 20 "new-to-the-flight" nurses. In the four larger units there was a net growth of eight flight nurse positions manned; there was a gross loss of 19 previously assigned flight nurses and a gross gain of 27 "new-to-the-flight" nurses.

In the two year period between FY 1984 and FY 1986 authorizations grew from 160 to 216 (or 56 new) flight nurse positions. There was a net growth of 24 flight nurse positions manned in the tactical aeromedical evacuation flight program. In actuality, there was a gross loss of 56 previously assigned flight nurses and a gross gain of 80 "new-to-the-flight" nurses.

Groups

The flight nurse authorizations in the two tactical aeromedical evacuation groups remained at 35 per unit for FY 1984, FY 1985, and FY 1986. In FY 1984 the total manning for these groups was at 62. Between FY 1984 and FY 1985 these two units experienced a combined gross loss of 14 previously assigned flight nurses and a combined gross gain of 20 "new-to-the-group" nurses. These two groups had a combined net growth in manning of six flight nurse positions; the total manning was at 68 by the end of FY 1985. By the end of FY 1986 these two units experienced a combined gross loss of 18 previously assigned flight nurses and a combined gross gain of 11 "new-to-the-group" nurses.

These two groups had a combined net manning loss of seven flight nurses.

From FY 1984 through the end of FY 1986 these two groups had an overall net loss in manning of one flight nurse. In this period, they had a gross loss of 32 previously assigned nurses and a gross gain of 31 "new-to-the-unit" nurses assigned.

Domestic Aeromedical Evacuation

In the one AFRes domestic aeromedical evacuation squadron there was no change in the authorization of flight nurse positions between FY 1982 and FY 1986. Between the end of FY 1984 and the end of FY 1985 the unit experienced a net manning gain of one flight nurse. Actually, three previously assigned flight nurses left the unit and four "new-to-the-squadron" nurses were assigned. Between the end of FY 1985 and the end of FY 1986 the 73 AES experienced a net manning loss of three flight flight nurses. Actually, seven previously assigned flight nurses left the unit and four "new-to-the-unit" nurses became members.

From the end of FY 1984 and the end of FY 1986 this unit had an overall net manning loss of two flight nurses. In actuality, the unit had a gross gain of eight "new-to-the-unit" flight nurses and a gross loss of ten

previously assigned flight nurses.

Collocated/Non-collocated Aircraft For Training

Although indicated in Appendix A, B, and C, it seems appropriate at this juncture to note that during this reference time frame both groups, the 32 AEG at Kelly Air Force Base, Texas, and the 37 AEG at McDill Air Force Base, Florida, began to train in non-collocated C-130 aircraft. One of the small tactical aeromedical evacuation flights, the 36 AEF at Richards-Gabaur, also lost access to collocated C-130 aircraft for training. The 74 AES was advised during the latter part of this reference time period that they would also be losing access to their training opportunities in collocated C-130 aircraft.

The 37 AEG was one of three AFRes units that experienced a decrease in flight nurse manning (overall -1; +19-20) during this reference period. The second unit that experienced a decrease in flight nurse manning (overall -2; +14-16) was the 74 AES at Westover AFB. The third unit to experience a decrease in flight nurse manning (-2; +8-10) was the 73 AES; in contrast to the other two units, this unit trains primarily on actual missions in the C-9 aircraft.

Gains and Losses of AFRes Flight Nurses
By Type Aeromedical Evacuation Unit
Between FY 84 and FY 85 & FY 85 and FY 86

Type Unit	FY 84 Auth/Asgn	Gross Loss/Gain (Net)	FY85 Auth/Asgn	Gross Loss/Gain (Net)	FY86 Auth/Asgn
Strategic Squadrons	540/476	-74/+128 (+54)	624/530	-103/+164 (+61)	630/591
The 60AES	20/20	-2/+1 (-1)	22/19	-5/+17 (+12)	64/31*
Tactical Squadrons	147/136	-27/+34 (+7)	162/143	-29/+36 (+7)	180/150
Tactical Flights	160/163	-23/+33 (+10)	176/173	-33/+47 (+14)	216/187
Tactical Groups	70/62	-14/+20 (+6)	70/68	-18/+11 (-7)	70/61
Domestic Squadron	36/38	-3/+4 (+1)	36/39	-7/+4 (-3)	36/36
TOTALS	973/895	-143/+220 (+77)	1090/972	-195/+279 (+84)	1196/1056

Table 4

Findings

1. Between the end of FY 1984 and FY 1985 there was a net manning gain of 77 AFRes flight nurses; between the end of FY 1985 and FY 1986 there was a net manning gain

of 84 AFRes flight nurses. During the period between the end of FY 1984 and the end of FY 1986, there was an overall net gain in manning of 161 AFRes flight nurse positions. This gain, however, is the result of the difference between the gross gain of 499 flight nurses "new-to-the-unit" and the gross loss of 338 flight nurses previously assigned to their respective aeromedical evacuation unit during this two year period.

2. By mission and type unit:

a. Total overall manning in the six strategic aeromedical evacuation units increased by a net gain of 115 during this two year period. This figure is the difference between the gross gain of 292 "new-to-the-unit" nurses and the gross loss of 177 previously assigned flight nurses.

b. The total overall manning in the 60 Aeromedical Evacuation Squadron that became tasked with a strategic mission following its conversion from a small tactical flight 1 July 1986, was a net increase of 11. This figure is the difference between the gross gain of 18 "new-to-the-unit" nurses and the gross loss of seven previously assigned flight nurses during the reference period.

c. The total overall manning in the tactical aeromedical evacuation squadrons increased by a net of 14. This figure is the difference between the gross gain of 70

"new-to-the-squadron" nurses and the gross loss of 56 previously assigned flight nurses.

d. In the reference period the overall manning in the tactical aeromedical evacuation flights increased by a net of 24. This figure is the difference between the gross gain of 80 "new-to-the-flight" nurses and the gross loss of 56 previously assigned flight nurses.

e. The tactical aeromedical evacuation groups experienced a slight overall drop in manning during the reference period. This overall net loss of one manned position reflected the difference between the gross gain of 31 "new-to-the-group" nurses and the gross loss of 32 previously assigned flight nurses.

f. The domestic aeromedical evacuation squadron also experienced a net drop of two manned positions during the reference time period. This figure is the difference between the gross gain of eight "new-to-the-squadron" nurses and the gross loss of ten previously assigned flight nurses.

3. Of the three AFRes aeromedical evacuation units that experienced a slight net drop in manning during the reference time period:

a. One unit was a tactical aeromedical evacuation group flying only simulated training missions in non-collocated aircraft. This unit has experienced gradual

growth from 28 to 35 authorized flight nurses positions since FY 1982.

b. One unit was a tactical aeromedical evacuation squadron flying only simulated training missions and anticipating the loss of collocated aircraft for training. This unit experienced a gradual growth in authorizations from 39 flight nurse positions in FY 1982 to 60 positions in FY 1986.

c. The third unit was the domestic aeromedical evacuation squadron that primarily trains on actual aeromedical evacuation missions and experienced no growth in authorizations since FY 1982.

4. This particular analysis of manning levels between the end of FY 1982 and the end of FY 1986 appears to confirm Finding 4 in CHAPTER III, that the specific manning level trends responded to the increases reflective of type unit and mission.

5. The overall drop in manning percentage levels appears to be an appropriate response to the surge nature of the authorization increase.

6. This particular analysis hints at the possible negative ramifications of non-collocated training aircraft and the value of actual versus simulated aeromedical evacuation training missions.

7. In looking at the gross "gains" and the gross

"losses" rather than just the overall net manning picture, it is quite apparent that recruiting "served" the AFRes flight nurse build well.

8. It would appear that gross "gain" and "loss" trends for all AFRes nurses should be considered in the development of ongoing recruitment, retention, and future nurse build endeavors.

CHAPTER V

THE LOSS - WHERE, WHY, AND WHAT

Fiscal Year 1986

There was an overall net gain of 84 flight nurses positions manned in AFRes aeromedical evacuation units between the end of FY 1985 and the end of FY 1986 (see CHAPTER IV). This number is the difference between the actual number of previously assigned flight nurses leaving from their respective aeromedical evacuation unit and the actual number of nurses gained by each of these aeromedical evacuation units. The actual number of nurses gained by the AFRes aeromedical evacuation program was 279; this figure is an indication of productive recruiting efforts. The actual number of previously assigned flight nurse loss or turnover was 195; this grouping is to be explored further to determine future build implications.

The purpose of this chapter is to explore data concerning this particular population of flight nurses from AFRes aeromedical evacuation units "lost" during the period between the end of FY 1985 and the end of FY 1986. This is a very specific group and statistical data concerning similar groups has not been found for the purpose of a comparative analysis. Findings that evolve from an indepth

exploration of the data concerning this group will only apply to this group.

The retrospective data presented in the data sections regarding the "losses" of flight nurses from AFRes aeromedical evacuation units during the period between the end of FY 1985 and the end of FY 1986 was determined by comparing quarterly Category A Unit/Nurse Atlas printouts prepared by the Personnel Directorate for the Command Surgeon's Office, Headquarters, Air Force Reserve.

The data concerning the disposition of these 195 flight nurses leaving AFRes aeromedical evacuation units was gained from Single Unit Retrieval and Format (SURF) computer searches. A comprehensive aggregate of overall raw data is presented as Appendix D titled "Raw Data Collected Regarding Disposition of Flight Nurse Losses From AFRes Aeromedical Evacuation Units During FY 1986."

Data Section I focuses on the general disposition of 195 flight nurses leaving AFRes aeromedical evacuation units during the reference time frame. A comprehensive aggregate of this information is presented in Appendix E titled "General Disposition of Flight Nurse Losses From Air Force Reserve Aeromedical Evacuation Units During FY 1986."

Data Section II focuses on the "given" reasons for the 127 flight nurses who requested transfer or were transferred from "participatory" status in an AFRes medical

program. A comprehensive aggregate of this information is presented in Appendix F titled "Reasons For Disposition of Flight Nurse Losses From Air Force Reserve Aeromedical Evacuation Units By ARPC Into Non-Participatory Status During FY 1986."

Data Section III focuses on the "turnover" rates of the AFRes flight nurses that left their respective aeromedical evacuation units and left overall participatory status. The information found in this section has evolved from the sources used to develop this entire study. A comprehensive aggregate of AFRES aeromedical evacuation unit "turnover" figures is presented in Appendix 7 titled "Flight Nurse Losses From Air Force Reserve Aeromedical Evacuation Units During FY 1986 - Determination of Turnover Rates."

Data Section I

During the period of time between the end of FY 1985 and the end of FY 1986, 195 flight nurses transferred from their assigned AFRes aeromedical evacuation unit. Disposition of these transfers included active duty, another AFRes aeromedical evacuation unit, another AFRes medical unit, Individual Mobilization Augmentee status, and non-participatory or discharged status.

Active Duty

Five (2.56%) of these flight nurses transferred into active duty nurse positions; four went with the Air Force and one went into the Navy. In this capacity, these members are still part of a total military nursing resource pool but can not be identified as part of any reserve military nursing resource pool.

Other AFRes Aeromedical Units

Twenty-seven (13.84%) of these flight nurses transferred into another AFRes aeromedical evacuation unit and, therefore, these individuals were not lost to the AFRes aeromedical evacuation program.

Other AFRes Medical Units

Fourteen (7.17%) of these flight nurses into another AFRes non-flying medical units. Although these individuals are no longer members of an AFRes aeromedical evacuation unit, they are still vital contributors to the AFRes medical program and are knowledgeable resources in aeromedical evacuation should the need arise at some future date.

Individual Mobilization Augmentees (IMAs)

Twenty-two (11.28%) of the flight nurses who left

their respective aeromedical evacuation units during FY 1986, went into the Individual Mobilization Augmentee program. Although these individuals no longer serve within a unit, they are still a vital part of the Reserve medical program. These individuals serve, primarily, in an active duty setting along side the active duty person to be augmented in time of mobilization.

The Others

127 (65.12%) flight nurses left their respective AFRes aeromedical evacuation units during FY 1986 and transferred (or were transferred) from a participatory AFRes medical program. The next data section will look at these individuals in *more* detail.

Data Section II

This data section presents the statistical data available concerning the "given" reasons for the 127 flight nurses who transferred or were transferred out of the participatory AFRes medical program. These individuals went into a non-participatory status and their records are monitored by the Air Reserve Personnel Center (ARPC); a small number (6) were officially discharged and are totally lost to the program. Air Force Regulation 35-41, Military

Personnel, Volume I: Assignments Within Reserve Components

lists a number of codified reasons used by ARPC to designate the basis of an assignment action into non-participatory or discharged status. In this particular population of 127 flight nurses, only eight codified reasons were found for this particular group as a result of the SURF computer search. These codified reasons include:

1. Unsatisfactory participation (RA)
2. Retirement (RE)
3. Expired Ready Reserve Agreement (RM)
4. Lacks qualifications/fails standards (involved discharge) (RW)
5. Job/school conflict (R3)
6. Pregnancy (R4)
7. Change of residence (relocation) (R5)
8. Personal hardship (R6)

Unsatisfactory Participation

Forty-nine (38.58%) of the flight nurses who left their respective aeromedical evacuation unit during FY 1986 and entered non-participatory status, were transferred because of "unsatisfactory participation." No additional "reason" information was available.

Retirement

Four (3.14%) of these flight nurses left their respective aeromedical evacuation unit during FY 1986

because of retirement.

Expired Ready Reserve Agreement

Three (2.36%) of these flight nurses were transferred from their respective aeromedical evacuation unit during FY 1986 because their Ready Reserve Agreement had expired and these individuals choose, for whatever reason, not to renew their agreements.

Discharged

Six (4.72%) of these flight nurses were transferred from their respective aeromedical evacuation unit during FY 1986 as the result of discharge actions. The reasons for this action came under the designation "lacks qualifications" or "fails standards." Information concerning discharged individuals is not available.

Job or School Conflict

Thirty (23.62%) of these flight nurses requested transfer from their respective aeromedical evacuation unit during FY 1986 as the result of a job or school conflict.

Pregnancy

Four (3.14%) of these flight nurses requested transfer from their respective aeromedical evacuation unit during FY 1986 because of pregnancy. It should be noted that transfer from an AFRes medical program is not required because of pregnancy; the option to transfer is the individual's choice.

Change of Residence (geographical relocation)

Twenty-six (20.47%) of these flight nurses requested transfer from their respective aeromedical evacuation unit during FY 1986 as the result of a geographical relocation.

The literature offers very little comparative employment, retention, and/or termination information due to the specified nature of this population. One piece of research by Linda M. Janelli, Major, NC, USAFR, and Patricia A. Jarmuz, Captain, NC, USAFR, titled "A Study of Motivational Factors that Affect the Retention of Reserve Nurses in Eight Aeromedical Evacuation Flights" (14:16-17) offers some interesting considerations, in addition to the following "job dissatisfiers" as possible contributors to "turnover:"

1. "the work itself"
2. "inadequacy of management and quality of policies"
3. "[the lack of] fairness and competency of supervisors"
4. "extra time required"
5. "time away from home/family"
6. "conflict with civilian job"

Data Section III

As stated in the introductory portion of this chapter, statistical data concerning similar groups has not been found for the purpose of a comparative analysis with this specific group under study. In the literature, statistics directed at nurse employment matters is primarily based on hospital nurses. According to the National Association of Health Care Recruitment the "turnover rate of nurses in the average hospital was 18 percent" in 1986. (13:646) It is recognized that this may be seen as a comparison of "apples and oranges" and, therefore, this 1986 turnover rate is offered only as a point of reference.

Turnover Rate Within AFRES Aeromedical Evacuation Program

The turnover rate was calculated by using the number of flight nurses leaving the AFRes aeromedical evacuation program between the end of FY 1985 and the end of FY 1986 as a percentage of the number of flight nurse positions manned at the end of FY 1985. The "turnover" rate for the AFRes flight nurses that choose to leave their respective aeromedical evacuation unit and did not transfer to another aeromedical evacuation unit, is 17.28%.

AFRes Flight Nurse Turnover Rate Within Participatory Status

The fact that many of these individuals transferred into non-flying AFRes medical units, entered the Individual Mobilization Augmentee program, or entered active duty only means that these individuals are in a different place but still part of the total military medical resource pool. For the most part, most of these individuals remain as assets in AFRes medical resource pool. The turnover rate presented here was calculated by using the number of flight nurses leaving the AFRes program as a percentage of the number of flight nurse positions manned at the end of FY 1985. The "turnover" rate for the AFRes flight nurses that left participatory status in the AFRes medical program during FY 1986, is 13%.

AFRes Flight Nurse Turnover Rates
By Type Aeromedical Evacuation Unit
During FY 1986

Type Unit	Number Assigned End FY85	FY86 Overall Loss	Loss From Active* Reserve Program	True AFRes Flight Nurse Turnover Rate - %
Strategic Squadrons	530	103	71	13.39
The 60AES	19	5	3	15.7
Tactical Squadrons	143	25	24	16.78
Tactical Flights	163	33	16	9.8
Tactical Groups	68	18	11	16.17
Domestic Squadron	39	7	2	5.1

(*Active = participatory)

Table 5

Findings

1. During the period of time between the end of FY 1985 and the end of FY 1986, 195 AFRes flight nurses transferred from their assigned aeromedical evacuation unit.

a. Five (2.56%) transferred to active duty.

b. Twenty-seven (13.84%) transferred to another AFRes aeromedical evacuation unit and are still a part of the overall aeromedical evacuation mission.

c. Fourteen (7.17%) transferred into another AFRes non-flying medical unit.

d. Twenty-two (11.28%) transferred into Individual Mobilization Augmentee status.

e. The remaining 127 (65.12%) flight nurses left participatory status in the AFRes medical program. ARPC has the capability to monitor the records of all of these individuals except those who were discharged.

2. Of the 195 AFRes flight nurses transferred from their assigned aeromedical evacuation unit between the end of FY 1985 and the end of FY 1986, 127 transferred (or were transferred) into non-participatory status for the following codified reasons:

a. Forty-nine (38.58%) were transferred because of unsatisfactory participation.

b. Four (3.14%) retired.

c. Three (2.36%) did not renew their Ready Reserve Agreement.

d. Six (4.72%) transfers resulted from discharge actions.

e. Thirty (23.62%) transferred because of job or school conflicts.

f. Four (3.14%) choose to transfer because of pregnancy.

g. Twenty-six (20.47%) requested transfer because of geographic relocation.

3. Statistical data concerning similar groups was not found for the purpose of comparative analysis (ie., nurse retention, nurse losses from other military medical programs, active or reserve, etc.).

4. The codified action reasons used by ARPC were developed to simplify computer input and are considered acceptable for administrative use and for the purpose of this study. It is recognized, however, that in the future a method other than an analysis of codified retrospective data would be more meaningful.

5. Statistics directed at nurse employment, recruitment, and turnover rates is primarily based upon hospital nurses.

6. According to the National Association of Health Care Recruitment the "turnover rate of nurses in the average hospital was 18% in 1986." To avoid "apples and oranges;" this turnover rate is offered only as a point of reference.

7. For FY 1986 the turnover rate for flight nurses assigned to AFRes aeromedical evacuation units and not transferring to another AFRes aeromedical evacuation units,

was 17.28%.

8. For FY 1986 the turnover rate for flight nurses assigned to AFRes aeromedical evacuation units who transferred from or were transferred from a participatory Reserve status, was 13%

9. The need to explore the contributors to "turnover" and the methods or means to diminish these factors for the purpose of improved retention, is a call for further research to enhance manning requirements and to facilitate future AFRes flight nurse builds.

10. "Turnover" trends should be considered when developing ongoing recruiting and future AFRes nurse build plans.

11. Although not discussed in this chapter, the "raw data" collected in Appendix 4 offers baseline data for future analysis of AFRes flight nurse losses in 1986 with regard to:

- a. Rank
- b. Attendance information for the Military Indoctrination for Medical Service Officers (MIMSO) course.
- c. Attendance information for the Flight Nurse Course.
- d. Time interval between completion of the Flight Nurse Course and transfer to non-participatory Reserve (or discharge) status.

CHAPTER VI

THE NURSE SHORTAGE

Now And In The Future

In the process of exploring the literature for trends that could influence plans and expectations for current and future military nursing resource builds and, in particular, future AFRes flight nurse builds, one very relevant factor emerges - the nurse shortage. A planner must look at the source of supply to establish realistic expectations.

The Debate

There is an ongoing debate about whether a nurse shortage truly exists and about the causes. The issue must be clarified for those concerned with the current and future military, active and reserve, nurse resource supplies.

In 1986, the American Hospital Association (AHA) reported high vacancy rates in positions for nurses. (1:642) The AHA based its report on a survey (3) conducted by one of its members - the American Organization for Nurse Executives. As a result of surveying 1000 hospitals there

was an indication that the rate of vacant positions for registered nurses had more than doubled between 1985 and 1986; this was an increase from 6.5% to 13.6%. The survey also indicated that "...although hospitals in all regions of the United States had some degree of difficulty in recruiting nurses, the problem was worst in the Middle Atlantic, Pacific, and East-North Central regions."

(13:647-648)

Also in 1986, the U. S. Department of Health and Human Services concluded that "...the national supply of nurses was in balance with the demand." (1:641) This conclusion was presented in the department's Fifth Report to the President and Congress on the Status of Health Personnel: Report on Nursing. (28)

In a 1987 American Journal of Nursing article, authors Curran, Minnick, and Moss wrote that "...the proportion of vacant positions for registered nurses in hospitals doubled between September 1985 and December 1986, reaching the levels of the last national nursing shortage in 1979." (9:444)

Authors Beyers and Damore, in a 1987 article titled "Nursing Shortage Requires Lasting Solution, Not a Quick Fix," indicated that "...many expect the shortage to build to monumental proportions, unlike any the nation has yet experienced." (6:32) They explain that the down sizing of

acute care settings, fluxes in patient census, layoffs, new health care services, and other changes related to nursing service have blurred the boundaries between the "end of the last shortage" and the "beginning of the next one."

(6:32-33)

In reviewing the literature and the different views held by the sources reported above, their differences may actually be a reflection of the population they studied and the time when the study occurred. The Department of Health and Human Services obtained their information during 1984; the others focused upon the issue during 1986. It may be that each authority presents information that was accurate at the time it was obtained; it appears that a significant change in nursing occurred between 1984 and 1986.

Apples and Oranges

To set an objective frame of reference regarding the information drawn from the literature regarding the "nurse shortage," it must be stated that the measurements made by the hospital industry and the authors quoted in this chapter are based upon "vacant budgeted full-time-equivalent positions for registered nurses." (1:642) It is recognized that "vacancy rates" are not objective measurements of the "nurse shortage" due to a number of limitations, but these are the measurements used

historically to reflect the changing supply of nurses.

The Current "Supply"

Reports of nurse shortages are perplexing in light of the current, not future, size of the nation's supply. In another report (29) by the Department of Health and Human Services titled The Registered Nurse Population, 1984, it is noted that the output of nurses doubled between 1954 and 1984. In 1984 the number of licensed registered nurses was 2.1 million. Between 1977 and 1984, the number of employed nurses increased by 55% while the general population grew by 8%. (1:641)

The current "nurse shortage" debate is further complicated by several additional facts. Hospitals' share of the ever growing pool of nurses has not changed since 1960; 62% of all employed registered nurses work in hospitals. (1:642) Although the national pool of employed registered nurses is at an all time high of 1.5 million and hospital closures continue, the American Hospital Association reported (2) a nursing shortage that is different and more serious than shortages in the past:

Not only is this the first time a nursing shortage has cut across all categories of nurses and all regions of the country, but it is occurring despite the fact that the demand for impatient hospital care is declining. (13:647)

Nurse utilization is changing. In 1968, registered nurses accounted for only 33% of the average hospital's nursing service personnel; by 1986, registered nurses accounted for 58%. The number of nurses employed by hospitals has not only been increased in the aggregate but also in relation to the number of patients. The ratio of nurses to patients increased substantially between 1968 and 1986. (1:642)

The rapid development of the current nurse shortage suggests that increased vacancy rates may be complicated by a changing demand for registered nurses. The situation is also seen to be influenced by the unprecedented task of matching nursing knowledge and skills with newly emerging technologies, intensified acute care settings, and more complex ambulatory and home care scenarios. (6:33)

Another consideration is the fact that almost 80% of all registered nurses are actively employed either full-time or part-time, as compared with 51% of all American women. Given the responsibilities of women for child rearing and other domestic concerns, this employment rate may be as high as can be expected. (1:642) An additional related statistic (as noted in Chapter 5) is the 18% turnover rate in 1986 for nurses in the average hospital setting according to the National Association of Health Care Recruitment. (13:646)

This current "nurse shortage" is also occurring during a period of turmoil within the field itself. Throughout the history of nursing, the profession has struggled with definitional issues. Firmly embedded in traditional mothering roles (97% of nurses are women), nursing has experienced difficulties as a professional and scientific field. Since the mid-60s and reaching a high level of concern in the 80s, professional nurses have been at odds over these issues, particularly in relation to education preparation. Students prepare to take licensure examinations through one of three kinds of programs: the associate degree program (two years), the hospital diploma program (three years), and the baccalaureate program (four, sometimes, five years). Because these educational programs all lead to the same licensing examination, hospitals have not differentiated between the new registered nurses when they are hired. This reality has served to lessen the overall value of educational time and financial investment in a baccalaureate degree. The American Nurses Association (ANA) has sought to make a bachelor's degree the minimum educational requirement for registered nurse licensure, but this campaign has met with only limited success. (13:646)

The Future "Supply"

It might be easy to view the current nurse shortage

as just another fluctuation in the labor supply that will correct itself except for the declining number of students entering nursing education programs.

Between 1983 and 1986, overall enrollments in schools of nursing have dropped between 20% (1:644) and 24% (8:59). In 1983 the enrollment of nursing students seeking licensure peaked at 250,553 and dropped to about 218,000 in 1985. (13:648) Enrollments in associate degree programs (two year) have declined 19% and baccalaureate program (four year) enrollments have declined 12%. Enrollments in three year hospital diploma programs have declined steadily in the last twenty years and in 1986 contribute only 14% of nurse graduates. (1:644) Although full-time master's nursing program enrollments are down 7.6%, doctoral nursing program enrollments are up 4.8%. (17:7)

The decline in enrollment is partly due to a change in the nation's demographics; there is a smaller number of "18-year-old cohorts." (1:644) Because of the static birth rate, the number of 18-year-olds enrolling in higher education is decreasing and is expected to decline until 1995. (13:646)

The enrollment decline is also seen as the result of a declining interest in nursing as a career. Astin and Green, with the University of California, Los Angeles, and in conjunction with the American Council of Education,

published the final results of a national twenty-year survey of "first time" college freshmen. This study (4) was published in 1986 and indicated a 50% decline since 1974 in the proportion of full-time women students planning to pursue nursing careers. In contrast, the interest in business careers increased almost three times. (1:644) It was noted in 1987 that, ironically, for the first time in history, more freshman women in four-year colleges were planning to be doctors than nurses. (8:59)(1:646)

There are numerous reasons for this decreased interest in the nursing profession. Although starting salaries of graduates from baccalaureate nursing programs are comparable to the starting salaries of other college graduates, the average maximum salary for a nurse is only \$7,000 more than her starting salary. As a result, even though more women are electing to work continuously in the work force, they are discouraged from selecting a career in nursing because of this low maximum salary expectation. (1:644) As stated earlier, employers do not offer "substantial differences in salary in return for advanced education in nursing." (1:644) The economic return on a college degree in nursing is much lower than the return in other career fields.

Another difference between now and earlier times is that women have more options for employment; more career

fields are open to women. (6:33) They are now pursuing "more lucrative endeavors in business, engineering, law, medicine, and science." (13:646) These careers offer significantly better financial rewards and (except for certain physician positions) do not require night and weekend work. (1:644)

Lessons From the Literature

The following two excerpts are offered as "lessons learned from the literature" in response to the stated purpose of this chapter and of this paper. The first quote is from "Reasons for Today's Nursing Shortage Sound Familiar" by Barbara Donaho:

When salaries and benefits do not maintain a steady trend upward, then other opportunities outside the institution setting look more desirable. This trend is generalized to all of nursing, and the positive image of nursing as a desirable profession is eroded. As a result, recruitment will continue to decline. Each time the cycle is repeated, the erosion becomes greater and will be more difficult to reverse. Clearly, greater vision is needed to deal with these issues, since crisis management tactics seem only to perpetuate the shortage cycle. Effective human resource planning is long overdue. (10:31)

and the second is from "Nursing Shortage Requires Lasting Solution, Not a Quick Fix" by Marjorie Beyers and Joseph Damore:

Administrative commitment to long range planning is essential to success. Leadership in achieving the long range view of recruitment and retention guides the use of scarce resources to achieve more lasting goals. The

mission and values that underlie all decisions for change are compatible with strategic planning and with a humanistic approach for valuing nurses. In the long run, most nurses are attracted to health care opportunities in which their contributions to patient care and their involvement in the decision-making process are appreciated. (6:35)

Findings

1. According to the literature, there is a debate going on about the existence of a nurse shortage and, if it exists, the causes of this shortage.

2. The information drawn from the literature regarding the "nurse shortage" states that the measurement that has been historically used by the hospital industry to reflect the changing supply of nurses is based upon "nurse vacancies." This term encompasses "vacant budgeted full-time-equivalent positions for registered nurses."

3. Recognized debating authorities present strong documentation of their views; it appears that each side has presented information that was accurate at the time it was obtained. Upon analysis, it appears that a significant change in the supply of nurses occurred between 1984 and 1986.

4. The rapid development of the current nurse shortage suggests that increased vacancy rates may be complicated by a changing demand for registered nurses.

a. Nurse utilization is changing.

b. In 1968, registered nurses accounted for only 33% of the average hospital's nursing service personnel; by 1986, registered nurses accounted for 58%.

c. The ratio of nurses to patients increased (more nurses to patients) considerably between 1968 and 1986.

d. This situation is also seen to be affected by the unprecedented task of matching nursing knowledge and skills with newly emerging technologies, intensified acute care settings, and more complex ambulatory and home care scenarios.

5. Almost 80% of all registered nurses are actively employed either full-time or part-time, as compared with 51% of all American women; this employment rate may be as high as can be expected.

6. In 1986, as noted in Chapter 5, the turnover rate for nurses in the average hospital setting was 18%.

7. This current "nurse shortage" has simultaneously occurring during a period of turmoil within the nursing profession; turmoil which is focused primarily upon educational preparation. Students prepare for licensure examinations through one of three kinds of programs:

a. The associate degree program (2 years)

b. The hospital diploma program (3 years)

c. The baccalaureate program (4/5 years)

These educational programs all lead to the same licensing examination; hospitals have not differentiated between new registered nurses when they are hired. The American Nurses Association has sought to make a bachelor's degree the minimum educational requirement for registered nurses; this campaign has met with only limited success.

8. This current "nurse shortage" may be just a warning of "what-is-to-come;" fewer students are entering nursing education programs. Overall enrollments from 1983 to 1986 dropped between 20-24%.

a. Enrollments in associate degree programs dropped 19%.

b. Enrollments in baccalaureate programs dropped 12%.

c. Enrollments in hospital diploma programs have dropped steadily in the last twenty years and contributed only 14% of nurse graduates in 1986.

9. This decline in enrollment is partly due to a change in the nation's demographics; there is a small number of "18-year-old cohorts.

10. As can be expected, fewer 18-year-olds are enrolling in higher education and the number is expected to continue to decline until 1995.

11. The drop in nursing education programs is also seen as the result of a declining interest in nursing as a career.

a. A 1986 study noted that the proportion of full-time freshman women planning to pursue nursing careers dropped 50% since 1974; in the same study, it was noted that their interests in business careers almost tripled.

b. More freshman women in four-year colleges were planning to be doctors than nurses in 1987.

12. There are numerous reasons for this decreased interest in the nursing profession:

a. More careers are open to women; careers that offer significantly better financial rewards and do not require night and weekend work.

b. Starting salaries are comparable with other college graduates. The average maximum salary for a nurse is only \$7,000 more than her starting salary; other career fields do much better.

c. More women are electing to work continuously in the work force but are discouraged by nursing because of the low maximum salary expectation.

13. Most nurses are attracted to health care opportunities in which their contributions to patient care and their involvement in the decision-making process are appreciated.

14. A different "nurse shortage" is evolving.

Vision is needed to deal with this reality. Effective human resource planning is overdue. Administrative commitment to long range planning is essential to success.

CHAPTER VII

CONCLUSION

Purpose of Study

As stated in CHAPTER I, the purpose of this study is to look at the recent authorization builds and the literature to determine if the Department of Defense initiative for 5,000 Air Force Reserve nurses by Fiscal Year 1990 is realistic.

Method

In compiling information, it was decided to focus on the "flight nurse" segment of the Air Force Reserve nurse population. There were two reasons for this decision:

1. This specific group provided a more manageable number for analysis, and
2. Flight nurses require initial and ongoing currency training that involves more significant costs and management considerations than other nursing specialties authorized in the Air Force Reserve medical program.

It should be noted that during the period studied, flight nurses ranged between 58-60% of the total number authorized nurses in the Air Force Reserve medical unit

program.

The information developed within Chapters II through V was based upon a series of quarterly reports titled Pertinent Facts About The Unit Reserve Category 'A' Medical Program compiled by the Office of the Command Surgeon, quarterly Category A Unit/Nurse Atlas printouts, and Single Unit Retrieval and Format (SURF) computer searches. All these documents were prepared at Headquarters, Air Force Reserve, Robins Air Force Base, Georgia.

The information presented in Chapter VI was developed from a search of the literature housed at Auburn University at Montgomery, Alabama, and from the University Microfilms International, Ann Arbor, Michigan.

Summary Findings

1. Between the beginning of Fiscal Year 1982 and the end of Fiscal Year 1986, the overall number of Air Force Reserve flight nurse authorizations increased from 621 to 1196 positions. This was a growth of almost 93% in flight nurse authorizations during this five year period. (Chapter II)

2. In response to this authorization build, the actual number of flight nurses assigned grew; the overall

manning rate, however, dropped from 103% in Fiscal Year 1982 to 88% in Fiscal Year 1986. (Chapter III)

3. Between the end of Fiscal Year 1982 and the end of Fiscal Year 1986, there was 64% overall growth in manning (642 to 1056 flight nurses assigned). (Chapter III) The yearly rate of growth occurred as follows:

a. Between the end of Fiscal Year 1982 and the end of Fiscal Year 1983, there was 18.42% growth in overall manning.

b. Between the end of Fiscal Year 1983 and the end of Fiscal Year 1984, there was 13.72% growth in overall manning.

c. Between the end of Fiscal Year 1984 and the end of Fiscal Year 1985, there was 8.60% growth in overall manning.

d. Between the end of Fiscal Year 1985 and the end of Fiscal Year 1986, there was 8.64% growth in overall manning.

4. Realistically, the drop in the overall manning and growth rate appears to demonstrate a "to-be-expected" lag in response to the surge nature of the authorization build. It should also be noted that a manning ceiling did not exist during the reference time frame. (Chapter III)

5. Between the end of Fiscal Year 1984 and the end of Fiscal Year 1985 there was a net manning gain of 77

flight nurses assigned; between the end of Fiscal Year 1985 and the end of Fiscal Year 1986 there was a net manning gain of 84 flight nurses assigned. (Chapter IV)

6. During this two year period, the end of Fiscal Year 1984 and the end of Fiscal Year 1986, the total net manning gain of 161 flight nurses assigned was the difference between the gross gains (499) and the gross losses (338) of flight nurses assigned. It is quite apparent that recruiting efforts well served the flight nurse build. (Chapter IV)

7. This particular analysis hints at the possible negative ramifications of non-located training aircraft and the value of real versus simulated aeromedical evacuation training missions. (Chapter IV)

8. During the time period between the end of Fiscal Year 1985 and the end of Fiscal Year 1986, 195 Air Force Reserve flight nurses transferred (or were transferred) from their assigned aeromedical evacuation unit. Of these individuals, 127 (including the six who were discharged) went into a non-participatory status. (Chapter V)

9. The use of the reference codified action reasons used by ARPC to simplify computer input for the previously unit assigned flight nurses entering non-participatory status, was considered acceptable for the

purposes of this study. In the future, a method other than an analysis of codified retrospective data would provide more meaningful information. (Chapter V)

10. In 1986 the turnover rate for flight nurses assigned to Air Force Reserve aeromedical evacuation units and not transferring to another Air Force Reserve aeromedical evacuation unit, was 17.28%. During the same time, the turnover rate for this same flight nurse population choosing to transfer (or were transferred) from a participatory status into a non-participatory status, was 13%. (Chapter V)

11. According to the National Association of Health Care Recruitment the "turnover rate of nurses in average hospitals," was 18% in 1986. Statistics directed at nurse employment, utilization, recruitment, and turnover rates are primarily based upon hospital nurses. This turnover rate is offered only as a point of reference. (Chapter VI)

12. There are indications in the literature that a different "nurse shortage" is evolving. The utilization of nurses is changing. The enrollment in nursing education programs is dropping. Demographically, there are fewer "18-year-old cohorts" in the United States. Fewer 18-year-olds are enrolling in higher education and the number is expected to decline until 1995. (Chapter VI)

13. The literature also indicates that there is a

declining interest in nursing as a profession. More careers are open to women; careers that offer significantly better financial rewards and better work schedules are drawing off potential candidates from the nursing profession. (Chapter VI)

Conclusive Finding

As a result of analyzing the data and reviewing relevant literature, the following "givens" were extracted for the purpose of developing a conclusive finding in response to the stated purpose of this study.

Given that:

1. The best annual growth rate (18%) or the overall growth rate (64%) that occurred in the manning of Air Force Reserve flight nurse authorizations between Fiscal Year 1982 and Fiscal Year 1986, will continue;
2. The same recruiting efforts that occurred between Fiscal Year 1982 and Fiscal Year 1986 will continue (despite budgetary constraints and manpower reductions);
3. The same educational preparation (an Associate Degree in Nursing or higher level of preparation) requirement;
4. The same "supply" of nurses will exist (considering the indications of a shortage of registered

nurses for the near and far term);

5. The same average loss rate or "turnover" rate for Fiscal Year 1986 will remain constant (although it is recognized that a determination over a three year period would provide a more meaningful average);

6. The information gathered in this study focused upon flight nurse manpower statistics is representative of the total participatory AFRes nurse population; and

7. Items #1, #2, #4, and #5 are optimistic in nature, the conclusive finding for this study is that the very best expectation for overall nurse manning in the Air Force Reserve medical participatory program would be between 2885 and 3529 nurses assigned at the end of Fiscal Year 1990.

Conclusion

As a result of analyzing the Air Force Reserve flight nurse build between Fiscal Year 1982 and Fiscal Year 1986 and the available literature focused on the evolving nurse shortage, it is concluded that Department of Defense initiative for obtaining a level of 5,000 nurses within the Air Force Reserve by Fiscal Year 1990 is a desirable but unrealistic goal.

Recommendations

1. To do effective planning, accurate baseline information is necessary. This information is available from several (computer) systems but, at the time the data for this study was collected, these systems did not "speak" to each other; the data had to be garnered manually. No one office or individual was able to provide the combined information. These systems should be "fixed" to facilitate combined collection of this information and an office (or a position in an office) should be designated to analyze this data for the purpose of formulating realistic Air Force Reserve nurse authorization goals. This information would also be of value in the monitoring of manpower management, the targeting of recruiting efforts, and the guidance of retention programs.

2. Currently, Air Force Reserve Recruiting monitors and usefully collects similar statistics for physicians. The reality that registered nurses are also a critical resource, warrants similar productive monitoring and informed recruitment and retention efforts.

3. Although Air Force Reserve nurses have actively been involved in nurse recruitment efforts, it should be noted that this participation has primarily been

unofficial, informal, and "on-their-own-time." Reserve nurses should be officially involved in nurse recruitment.

4. Although the Air Force Reserve nurse "turnover" rate as reflected in this study of flight nurses seems relatively "good" in comparison to the turnover rate quoted for hospital nurses, attention should be paid to retention. As in nurse recruitment efforts, individual nurses and individual units have been involved in retention studies and efforts. A more formalized retention program should be developed and Air Force Reserve nurses should be officially involved in retention programs.

5. Air Force Reserve nurses with research and management expertise should be officially involved in ongoing Reserve nurse manpower management and in the planning for future builds.

6. Commitment to long-range nurse resource planning by high level Air Force Reserve management is essential for the continued successful manning of nurse positions in the Air Force Reserve medical program.

APPENDIX A

End of Fiscal Year Flight Nurse Authorizations in Air Force Reserve Aeromedical Evacuation Units FY 82, FY 83, FY 84, FY 85, and FY 86

Unit Location	FY 82 Auth	FY 83 Auth	FY 84 Auth	FY 85 Auth	FY 86 Auth
31AES Charleston C-141s; train on live and simulated missions; strategic; aircraft collocated	46	76	90	104	105
40AES McChord C-141s; train on live and simulated missions; strategic; aircraft collocated	46	76	90	104	105
65AES Travis C-141s; train on live and simulated missions; strategic; aircraft collocated	46	76	90	104	105
68AES Norton C-141s; train on live and simulated missions; strategic; aircraft collocated	46	76	90	104	105
69AES McGuire C-141s; train on live and simulated missions; strategic; aircraft collocated	46	76	90	104	105
72AES McGuire C-141s; train on live and simulated missions; strategic; aircraft collocated	46	76	90	104	105

60AES Andrews *The 60 AEF flew in C-130s until converted 1 Jul 86 to 60AES flying C-141s; now train on live and simulated missions; strategic; aircraft collocated	15	18	20	22	64*

Unit Location	FY 82 Auth	FY 83 Auth	FY 84 Auth	FY 85 Auth	FY 86 Auth
33AES Greater Pittsburg C-130s; train on simulated missions; tactical; aircraft collocated	40	44	49	54	60
34AES Kelly C-130s; train on simulated missions; tactical; non-collocated aircraft	39	44	49	54	60
74AES Westover C-130s; train on simulated missions; tactical; non-collocated aircraft	39	44	49	54	60

36AEF Richards-Gabaur C-130s; train on simulated missions; tactical; non-collocated aircraft	15	18	20	22	24
45AEF Selfridge C-130s; train on simulated missions; tactical; aircraft collocated	15	18	20	22	24
47AEF Minn-St Paul C-130s; train on simulated missions; tactical; aircraft collocated	15	18	20	22	24
63AEF O'Hare C-130s; train on simulated missions; tactical; aircraft collocated	15	18	20	22	24
35AEF Maxwell C-130s; train on simulated missions; tactical; aircraft collocated	15	18	20	22	30
64AEF Dobbins C-130s; train on simulated missions; tactical; aircraft collocated	15	18	20	22	30

Unit	FY 82	FY 83	FY 84	FY 85	FY 86
Location	Auth	Auth	Auth	Auth	Auth
67AEF	15	18	20	22	30
Rickenbacker					
C-130s; train on simulated missions; tactical; aircraft collocated					
70AEF	15	18	20	22	30
Niagara Falls					
C-130s; train on simulated missions; tactical; aircraft collocated					

32AEG	28	33	35	35	35
Kelly					
C-130s; train on simulated missions; tactical; non-collocated aircraft					
37AE	28	33	35	35	35
McDill					
C-130s; train on simulated missions; tactical; non-collocated aircraft					

73AES	36	36	36	36	36
Scott					
C-9s; train primarily on live missions; domestic; aircraft collocated					

TOTALS	621	852	973	1090	1196

APPENDIX B

End of Fiscal Year Flight Nurse Authorizations and Actual Number Assigned to Reserve Aeromedical Evacuation Units FY 82, FY 83, FY 84, FY 85, and FY 86

Unit Location	FY 82 Auth/Asgn	FY 83 Auth/Asgn	FY 84 Auth/Asgn	FY 85 Auth/Asgn	FY 86 Auth/Asgn
31AES Charleston C-141s; train on live and simulated missions; strategic; aircraft collocated	46/50	76/71	90/84	104/90	105/97
40AES McChord C-141s; train on live and simulated missions; strategic; aircraft collocated	46/53	76/69	90/80	104/86	105/109
65AES Travis C-141s; train on live and simulated missions; strategic; aircraft collocated	46/50	76/75	90/79	104/94	105/101
68AES Norton C-141s; train on live and simulated missions; strategic; aircraft collocated	46/63	76/75	90/89	104/87	105/94
69AES McGuire C-141s; train on live and simulated missions; strategic; aircraft collocated	46/45	76/62	90/71	104/81	105/94
72AES McGuire C-141s; train on live and simulated missions; strategic; aircraft collocated	46/43	76/47	90/73	104/92	105/96

60AES Andrews *The 60 AEF flew C-130s until converted 1 Jul 86 to 60AES flying C-141s; now train on live and simulated missions; strategic; aircraft collocated	15/12	18/17	20/20	22/19	64/31*
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Unit	FY 82	FY 83	FY 84	FY 85	FY 86
Location	Auth/Asgn	Auth/Asgn	Auth/Asgn	Auth/Asgn	Auth/Asgn
33AES Greater Pittsburg C-130s; train on simulated missions; tactical; aircraft collocated	40/36	44/42	49/41	54/48	60/53
34AES Kelly C-130s; train on simulated missions; tactical; non-collocated aircraft	39/33	44/41	49/47	54/45	60/51
74AES Westover C-130s; train on simulated missions; tactical; non-collocated aircraft	39/39	44/44	49/48	54/50	60/46

36AEF Richards-Gabaur C-130s; train on simulated missions; tactical; non-collocated aircraft	15/18	18/18	20/18	22/21	24/23
45AEF Selfridge C-130s; train on simulated missions; tactical; aircraft collocated	15/15	18/17	20/19	22/18	24/25
47AEF Minn-St Paul C-130s; train on simulated missions; tactical; aircraft collocated	15/14	18/17	20/22	22/22	24/17
63AEF O'Hare C-130s; train on simulated missions; tactical; aircraft collocated	15/18	18/20	20/24	22/22	24/24
35AEF Maxwell C-130s; train on simulated missions; tactical; aircraft collocated	15/18	18/19	20/22	22/26	30/25
64AEF Dobbins C-130s; train on simulated missions; tactical; aircraft collocated	15/17	18/19	20/18	22/19	30/28

Unit	FY 82	FY 83	FY 84	FY 85	FY 86
Location	Auth/Asgn	Auth/Asgn	Auth/Asgn	Auth/Asgn	Auth/Asgn

67AEF	15/15	18/16	20/19	22/21	30/21
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Rickenbacker

C-130s; train on simulated missions; tactical; aircraft
collocated

70AEF	15/17	18/18	20/21	22/24	30/24
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Niagara Falls

C-130s; train on simulated missions; tactical; aircraft
collocated

32AEG	28/20	33/29	35/30	35/28	35/30
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Kelly

C-130s; train on simulated missions; tactical; non-collocated
aircraft

37AEG	28/26	33/33	35/32	35/40	35/31
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McDill

C-130s; train on simulated missions; tactical; non-collocated
aircraft

73AES	36/40	36/38	36/38	36/39	36/36
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Scott

C-9s; train primarily on live missions; domestic; aircraft
collocated

TOTALS	621/642	852/787	973/895	1090/972	1196/1056
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ANNUAL
GROWTH

18.42%	13.72%	8.60%	8.64%
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OVERALL
GROWTH

64%

APPENDIX C

Gains and Losses of Flight Nurses Actually Assigned to
Air Force Reserve Aeromedical Evacuation Units
Between FY 84 and FY 85 and Between FY 85 and FY 86

Unit Location	FY 84 Auth/Asgn	Gross Loss/Gain (Net)	FY 85 Auth/Asgn	Gross Loss/Gain (Net)	FY 86 Auth/Asgn
31AES Charleston C-141s; train on live and simulated missions; strategic; aircraft collocated	90/84	-14/+20	104/90	-22/+29	105/97
40AES McChord C-141s; train on live and simulated missions; strategic; aircraft collocated	90/80	-11/+17	104/86	-12/+35	105/109
65AES Travis C-141s; train on live and simulated missions; strategic; aircraft collocated	90/79	-9/+24	104/94	-19/+26	105/101
68AES Norton C-141s; train on live and simulated missions; strategic; aircraft collocated	90/89	-20/+18	104/87	-19/+26	105/94
69AES McGuire C-141s; train on live and simulated missions; strategic; aircraft collocated	90/71	-6/+16	104/81	-13/+26	105/94
72AES McGuire C-141s; train on live and simulated missions; strategic; aircraft collocated	90/73	-14/+33	104/92	-18/+22	105/96
Subtotal:	540/476	-74/+128 (+54)	624/530	-103/+164 (+61)	630/591

	FY 84 Auth/Asgn	Gross Loss/Gain (Net)	FY 85 Auth/Asgn	Gross Loss/Gain (Net)	FY 86 Auth/Asgn
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Unit
Location

60AES	20/20	-2/+1	22/19	-5/+17	64/31*
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Andrews

*Was the 60 AEF flying C-130s until converted 1 Jul 86 to 60AES flying C-140s; now train on live and simulated missions; strategic; aircraft collocated

33AES	49/41	-8/+15	54/48	-10/+15	60/53
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Greater Pittsburg

C-130s; train on simulated missions; tactical; aircraft collocated

34AES	49/47	-13/+11	54/45	-9/+15	60/51
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Kelly

C-130s; train on simulated missions; tactical; non-collocated aircraft

74AES	49/48	-6/+8	54/50	-10/+6	60/46
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Westover

C-130s; train on simulated missions; tactical; non-collocated aircraft

Subtotal:	147/136	-27/+34 (+7)	162/143	-29/+36 (+7)	180/150
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36AEF	20/18	-1/+4	22/21	-5/+7	24/23
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Richards-Gabaur

C-130s; train on simulated missions; tactical; non-collocated aircraft

45AEF	20/19	-5/+4	22/18	-2/+9	24/25
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Selfridge

C-130s; train on simulated missions; tactical; aircraft collocated

47AEF	20/22	0/0	22/22	-5/0	24/17
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Minn-St Paul

C-130s; train on simulated missions; tactical; aircraft collocated

63AEF	20/24	-6/+4	22/22	-2/+4	24/24
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O'Hare

C-130s; train on simulated missions; tactical; aircraft collocated

Unit Location	FY 84 Auth/Asgn	Gross Loss/Gain (Net)	FY 85 Auth/Asgn	Gross Loss/Gain (Net)	FY 86 Auth/Asgn
35AEF Maxwell C-130s; train on simulated missions; tactical; aircraft collocated	20/22	-4/+8	22/26	-7/+6	30/25
64AEF Dobbins C-130s; train on simulated missions; tactical; aircraft collocated	20/18	-2/+3	22/19	-4/+13	30/28
67AEF Rickenbacker C-130s; train on simulated missions; tactical; aircraft collocated	20/19	-3/+5	22/21	-4/+4	30/21
70AEF Niagara Falls C-130s; train on simulated missions; tactical; aircraft collocated	20/21	-2/+5	22/24	-4/+4	30/24
Subtotal:	160/163	-23/+33 (+10)	176/173	-33/+47 (+14)	216/187

32AEG Kelly C-130s; train on simulated missions; tactical; non-collocated aircraft	35/30	-7/+5	35/28	-5/+7	35/30
37AEG McDill C-130s; train on simulated missions; tactical; non-collocated aircraft	35/32	-7/+15	35/40	-13/+4	35/31
Subtotal:	70/62	-14/+20 (+6)	70/68	-18/+11 (-7)	70/61

73AES Scott C-9s; train primarily on live missions; domestic; aircraft collocated	36/38	-3/+4	36/39	-7/+4	36/36

	FY 84 Auth/Asgn	Gross Loss/Gain (Net)	FY 85 Auth/Asgn	Gross Loss/Gain (Net)	FY 86 Auth/Asgn
TOTALS:	973/895	-143/+220	1090/972	-195/+279	1196/1056
Overall Net:		(+77)		(+84)	

APPENDIX D

RAW DATA COLLECTED REGARDING DISPOSITION OF FLIGHT NURSE LOSSES FROM AIR FORCE RESERVE AEROMEDICAL EVACUATION UNITS DURING FY 86

Abbreviations and Symbols Used:

Column 1 - I.D.

The letter indicates the reference flying unit and the number indicates the reference individual

Column 2 - Rank

This column indicates the rank of the reference individual at time of transfer from reference flying unit

Column 3 - Trans To

This column indicates where the reference individual transferred to:

AD = Active Duty (Note: When a member transfers to active duty status personnel information is no longer maintained in the Reserve record system)

OFU = Other flying unit (AFRes)

ONFU = Other non-flying (AFRes)

ARPC = Air Reserve Personnel Center (Note: An indication of Reserve status other than "active duty" or "unit member")

Column 4 - Attend MIMSO

This column indicates the date that the reference individual attended MIMSO, the Military Indoctrination for Medical Service Officers course. Other letter symbols are also used in this column as indicated:

AWOAD = Attended while on active duty, therefore, information is not available

DNA = Did not attend

INA = Information not available

Column 5 - FNC Date

This column indicates the date that the reference individual attended FNC, the Flight Nurse Course. Other letter symbols are also used in this column as indicated:

AWOAD = Attended while on active duty, therefore,
 information is not available
DNA = Did not attend
INA = Information not available

Column 6 - Reason for ARPC Transfer

This column indicates the reason that the reference individual transferred from the flying unit to an ARPC status. These symbols are those used by the Reserve personnel record system:

RA = Unsatisfactory Participation
RE = Retirement
RM = Expired Ready Reserve Agreement
RU = Transferred into the IMA Individual Mobilization
 Augmentee program
RW = Discharged (Note: Upon discharge, personnel
 information is no longer maintained by the Reserve
 record system)
R3 = Personal Reason (work, school conflicts, etc.)
R4 = Pregnancy
R5 = Relocation
R6 = Personal Hardship (family, health, etc.)

Column 7 - Time Interval FNC&ARPC

This column indicated the time interval, in months, between completion of the Flight Nurse Course and transfer from the flying unit to an ARPC status. Other letter symbols are also used in this column indicated

a = 0 to 12 months	1 year or less
b = 13 to 24 months	>1 year & 2 years or <
c = 25 to 36 months	>2 years & 3 years or <
d = 37 to 48 months	>3 years & 4 years or <
e = 49 to 60 months	>4 years & 5 years or <
f = 61 to 84 months	>5 years & 7 years or <
g = 85 to 120 months	>7 years & 10 years or <

TBAFNC = Transferred before attending Flight Nurse Course

TEAMIMSO or FNC = Transferred before attending MIMSO or the Flight Nurse Course

NATC = Not able to calculate

I.D.	Rank:	Trans To:	Attend MIMSO:	FNC Date:	Reason for ARPC Transfer:	Time Interval FNC&ARPC
A-1	01	ARPC	1/85	DNA	RA=UnSatPart	TBAFNC
A-2	01	ARPC	1/85	DNA	RA=UnSatPart	TBAFNC
A-3	02	ARPC	DNA	9/83	R5=ReLoc	d
A-4	01	ARPC	DNA	DNA	RA=UnSatPart	TEAMIMSO or FNC
A-5	02	ARPC	5/83	2/83	RU=IndMobAug	d
A-6	01	ONFU	DNA	DNA	n/a	n/a
A-7	02	OPU	9/84	9/85	n/a	n/a
A-8	02	ARPC	12/85	2/86	R3=PerReas	a
A-9	02	ARPC	9/84	2/85	R3=PerReas	b
A-10	03	ARPC	AWOAD	AWOAD	R3=PerReas	NATC
A-11	03	ARPC	1/82	5/82	R3=PerReas	d
A-12	03	ARPC	8/80	2/85	R5=ReLoc	b
A-13	02	ARPC	5/83	9/83	RA=UnSatPart	d
A-14	03m	AD	INA	INA	n/a	n/a
A-15	03	ARPC	10/75	9/84	R5=ReLoc	c
A-16	03	ARPC	7/77	6/83	R5=ReLoc	d
A-17	02	ARPC	11/82	12/82	R3=PerRes	d
A-18	02	ARPC	7/73	7/74	R4=Preg	h

I. D.	Rank:	Trans To:	Attend MIMSO:	FNC Date:	Reason for ARPC Transfer:	Time Interval FNC&ARPC:
A-19	02m	ARPC	6/84	12/84	R3=PerRes	b
A-20	02	ARPC	12/82	3/83	R6=PerHard	c
A-21	04	ARPC	11/72	5/81	RU=IndMobAug	f
A-22	04	ARPC	DNA	7/73	RU=IndMobAug	h

Column 3 Subtotals for Unit A:

1 = Active duty
1 = Other flying unit
1 = Other non-flying unit
19 = ARPC status

B-1	02m	ARPC	11/83	7/84	R5=ReLoc	b
B-2	03m	ARPC	INA	INA	Discharged	NATC
B-3	03	ARPC	11/79	5/81	R3=PerReas	e
B-4	03m	ARPC	AWOAD	9/84	RA=UnSatPart	b
B-5	02	ARPC	11/83	8/84	RM=ReadyResAgr	b
B-6	01	OFU	6/85	12/86	n/a	n/a
B-7	02m	ARPC	3/84	7/84	RA=UnSatPart	b
B-8	02	ARPC	2/84	12/84	RA=UnSatPart	b
B-9	01	ARPC	6/85	DNA	RA=UnSatPart	TBAFNC
B-10	02	ONFU	1/83	5/83	n/a	n/a
B-11	02	ARPC	3/84	11/84	RA=UnSatPart	b
B-12	04	OFU	INA	INA	n/a	n/a

Column 3 Subtotals for Unit B:

0 = Active duty
2 = Other flying unit
1 = Other non-flying unit
9 = ARPC status

I.D.	Rank:	Trans To:	Attend MIMSO:	FNC Date:	Reason for ARPC Transfer:	Time Interval FNC&ARPC:
C-1	01	ARPC	3/85	DNA	RA=UnSatPart	TBAFNC
C-2	01	ARPC	DNA	DNA	RA=UnSatPart	TBAMIMSO or FNC
C-3	01	ARPC	INA	INA	Discharged	NATC
C-4	01	ARPC	DNA	DNA	RA=UnSatPart	TBAMIMSO or FNC
C-5	02	OFU	9/83	3/84	n/a	n/a
C-6	02	ARPC	2/83	6/83	R6=PerHard	c
C-7	02	ARPC	3/84	DNA	RA=UnSatPart	TBAFNC
C-8	02	OFU	8/84	2/85	n/a	n/a
C-9	03	ARPC	1/78	5/83	R5=ReLoc	c
C-10	03	OFU	8/80	11/80	n/a	n/a
C-11	03	ARPC	7/77	7/80	R3=PerReas	f
C-12	03	ARPC	DNA	11/83	R3=PerReas	c
C-13	01	OFU	8/85	12/85	n/a	n/a
C-14	02	ARPC	1/84	5/84	R5=ReLoc	c
C-15	01	ARPC	3/85	DNA	RA=UnSatPart	TBAFNC
C-16	04	ARPC	6/77	DNA	RA=UnSatPart	TBAFNC
C-17	02	ARPC	DNA	11/71	RA=UnSatPart	NATC
C-18	05	ARPC	DNA	3/68	RU=IndMobAug	h
C-19	04	ONFU	8/76	7/84	n/a	n/a

Column 3 Subtotals for Unit C:

0 = Active duty
4 = Other flying unit
1 = Other non-flying unit
14 = ARPC status

I. D.	Rank:	Trans To:	Attend MIMSO:	FNC Date:	Reason for ARPC Transfer:	Time Interval FNC&ARPC:
D-1	02	ARPC	12/83	2/84	R4=Preg	b
D-2	01	ARPC	INA	INA	Discharge	NATC
D-3	02	ARPC	DNA	11/83	R5=ReLoc	c
D-4	01m	ONFU	5/85	1/86	n/a	n/a
D-5	03	ARPC	5/80	8/80	R6=PerHard	f
D-6	03	ARPC	1/83	3/83	R3=PerReas	d
D-7	02	ARPC	6/84	12/84	R3=PerReas	b
D-8	04	OFU	5/78	DNA	n/a	n/a
D-9	02	ARPC	12/83	2/84	R3=PerReas	c
D-10	02	ONFU	2/82	3/82	n/a	n/a
D-11	03m	OFU	5/79	2/86	n/a	n/a
D-12	03	ARPC	DNA	11/83	R5=ReLoc	c
D-13	01	ARPC	1/85	DNA	RA=UnSatPart	TBAFNC
D-14	01	ARPC	6/84	12/84	R3=PerReas	b
D-15	03	ARPC	11/81	DNA	RU=IndMobAug	TBAFNC
D-16	01	ARPC	12/84	2/85	R5=ReLoc	b
D-17	03	ARPC	8/80	11/80	R6=PerHard	f
D-18	04	ARPC	1/76	2/76	R3=PerReas	h
D-19	04	ARPC	5/80	10/80	R5=ReLoc	e

Column 3 Subtotals for Unit D:

0 = Active duty
2 = Other flying unit
2 = Other non-flying unit
15 = ARPC status

I.D.	Rank:	Trans To:	Attend MIMSO:	FNC Date:	Reason for ARPC Transfer:	Time Interval FNC&ARPC:
E-1	02	ARPC	2/84	7/84	R5=ReLoc	b
E-2	01m	ARPC	9/84	3/85	RA=UnSatPart	a
E-3	02	OFU	9/83	2/84	n/a	n/a
E-4	03	OFU	5/81	7/81	n/a	n/a
E-5	03	ARPC	AWOAD	2/84	RM=ReadyResAgr	c
E-6	03	ARPC	11/80	2/81	R5=ReLoc	e
E-7	04	ARPC	1/75	DNA	R3=PerReas	TBAFNC
E-8	03	ARPC	AWOAD	4/86	R6=PerHard	a
E-9	03	ARPC	AWOAD	10/81	R5=ReLoc	e
E-10	03	ARPC	AWOAD	9/84	RU=IndMobAug	b
E-11	05	ARPC	DNA	10/68	RU=IndMobAug	h
E-12	04	OFU	DNA	7/69	n/a	n/a
E-13	05	ARPC	DNA	9/72	RU=IndMobAug	h

Column 3 Subtotals for Unit E:

0 = Active duty
3 = Other flying unit
0 = Other non-flying unit
10 = ARPC status

F-1	02	ARPC	6/84	12/84	R5=ReLoc	b
F-2	01	ARPC	8/84	9/85	RA=UnSatPart	a
F-3	02	ARPC	11/83	3/84	R3=PerReas	c
F-4	01	ARPC	8/84	2/85	R3=PerReas	b
F-5	01	OFU	8/85	11/85	n/a	n/a
F-6	02	ARPC	2/84	7/84	RA=UnSatPart	b
F-7	01	ARPC	INA	INA	Discharge	NATC

I.D.	Rank:	Trans To:	Attend MIMSO:	FNC Date:	Reason for ARPC Transfer:	Time Interval FNC&ARPC:
F-8	01	ONFU	8/85	DNA	n/a	n/a
F-9	01	OFU	10/84	3/85	n/a	n/a
F-10	01m	ARPC	5/85	2/85	RA=UnSatPart	a
F-11	01	ARPC	1/85	DNA	RA=UnSatPart	TBAFNC
F-12	02	ARPC	8/84	12/84	R3=PerReas	b
F-13	01	OFU	2/85	5/85	n/a	n/a
F-14	03	ARPC	2/81	5/85	RU=IndMobAug	a
F-15	03	ONFU	2/77	9/78	n/a	n/a
F-16	04	ARPC	4/72	5/79	R3=PerReas	f
F-17	04	ARPC	DNA	5/69	RA=UnSatPart	NATC
F-18	04m	ARPC	DNA	9/73	RA=UnSatPart	NATC

Column 3 Subtotals for Unit F:

0 = Active duty
3 = Other flying unit
2 = Other non-flying unit
13 = ARPC status

G-1	02m	ARPC	3/84	5/84	R5=ReLoc	c
G-2	03	ARPC	AWOAD	AWOAD	IMA=IndMobAug	NATC
G-3	02	ARPC	10/84	3/85	RA=UnSatPart	b
G-4	02	ONFU	1/83	6/83	n/a	n/a
G-5	05	ARPC	DNA	11/71	RE=Retired	h

Column 3 Subtotals for Unit G:

0 = Active duty
0 = Other flying unit
1 = Other non-flying unit
4 = ARPC status

I. D.	Rank:	Trans To:	Attend MIMSO:	FNC Date:	Reason for ARPC Transfer:	Time Interval FNC&ARPC:
H-1	03	ARPC	3/76	10/81	RU=IndMobAug	i
H-2	02	ARPC	DNA	3/82	RU=IndMobAug	e
H-3	03	ARPC	1/78	6/82	RU=IndMobAug	d
H-4	04	ARPC	DNA	5/73	RU=IndMobAug	h
H-5	05	ARPC	DNA	2/70	RU=IndMobAug	h
H-6	05	ARPC	DNA	3/68	RE=Retired	h
H-7	04	ARPC	DNA	2/75	R5=ReLoc	g

Column 3 Subtotals for Unit H:

0 = Active duty
0 = Other flying unit
0 = Other non-flying unit
7 = ARPC status

I-1	01	ARPC	5/84	6/84	RA=UnSatPart	a
I-2	03	ARPC	7/77	4/82	RU=IndMobAug	e now MSC
I-3	01	OFU	9/85	6/86	n/a	n/a
I-4	01m	AD	INA	INA	n/a	n/a
I-5	03	OFU	2/81	5/85	n/a	n/a

Column 3 Subtotals for Unit I:

1 = Active duty
2 = Other flying unit
0 = Other non-flying unit
2 = ARPC status

J-1	03	ARPC	8/80	11/80	R4=Preg	f
J-2	01	ARPC	8/85	5/86	R3=PerReas	a
J-3	05	ARPC	DNA	10/68	RU=IndMobAug	h
J-4	03	ARPC	12/74	2/76	RA=UnSatPart	NATC
J-5	01	ARPC	9/84	5/85	R5=ReLoc	a

I.D.	Rank:	Trans To:	Attend MIMSO:	FNC Date:	Reason For ARPC Transfer:	Time Interval FNC&ARPC:
J-6	01	ARPC	9/85	DNA	R4=Preg	TBAFNC
J-7	01	ARPC	DNA	DNA	RA=UnSatPart	TBAMIMSO or FNC
J-8	02	OFU	9/83	2/84	n/a	n/a
J-9	02	ARPC	DNA	DNS	RA=UnSatPart	TBAMIMSO or FNC
J-10	03m	ARPC	6/80	12/79	R3=PerReas	f
J-11	01	ARPC	2/85	7/85	RA=UnSatPart	a
J-12	02	ARPC	10/82	12/82	RA=UnSatPart	c
J-13	02m	ONFU	2/84	DNA	n/a	n/a

Column 3 Subtotals for Unit J:

0 = Active duty
1 = Other flying unit
1 = Other non-flying unit
11 = ARPC status

K-1	02	ARPC	3/83	8/84	R5=ReLoc	b
K-2	01m	ARPC	9/84	DNA	RA=UnSatPart	TBAFNC
K-3	01	ARPC	6/85	DNA	RA=UnSatPart	TBAFNC
K-4	03	ARPC	9/80	11/80	R3=PerReas	d
K-5	02	ARPC	2/83	2/84	RA=UnSatPart	b
K-6	01	ARPC	6/85	DNA	RA=UnSatPart	TBAFNC
K-7	03	ARPC	1/82	DNA	R3=PerReas	TBAFNC
K-8	01	ARPC	3/85	12/85	R5=ReLoc	a
K-9	01	ARPC	3/85	DNA	RA=UnSatPart	TBAFNC
K-10	01	ARPC	5/85	DNA	RA=UnSatPart	TBAFNC

Column 3 Subtotals for Unit K:

0 = Active duty
0 = Other flying unit
0 = Other non-flying unit
10 = ARPC status

I.D.	Rank:	Trans To:	Attend MIMSO:	FNC Date:	Reason for ARPC Transfer:	Time Interval FNC&ARPC:
L-1	01	ARPC	9/83	DNA	RA=UnSatPart	TBAFNC
L-2	01m	ARPC	9/84	12/84	RM=ReadyResAgr	b
L-3	01	ONFU	12/85	DNA	n/a	n/a
L-4	01	ARPC	9/84	7/85	R3=PerReas	a
L-5	03	ARPC	2/80	6/83	R5=ReLoc	b
L-6	04	ARPC	10/71	6/82	R3=PerReas	c
L-7	03	OFU	7/75	DNA	n/a	n/a
L-8	03m	ARPC	7/80	9/84	R3=PerReas	b
L-9	04	ARPC	DNA	10/68	RU=IndMobAug	h

Column 3 Subtotals for Unit L:

0 = Active duty
1 = Other flying unit
1 = Other non-flying unit
7 = ARPC status

M-1	01	AD	INA	INA	n/a	n/a
M-2	02	OFU	1/81	3/81	n/a	n/a
M-3	03	ARPC	11/76	6/83	RU=IndMobAug	c
M-4	01	ARPC	9/84	2/85	RU=IndMobAug	b
M-5	03m	ARPC	INA	INA	Discharged	NATC
M-6	02m	ARPC	INA	INA	Discharged	NATC
M-7	03	ONFU	AWOAD	AWOAD	n/a	n/a

Column 3 Subtotals for Unit M:

1 = Active duty
 1 = Other flying unit
 1 = Other non-flying unit
 4 = ARPC status

I. D.	Rank:	Trans To:	Attend MIMSO:	FNC Date:	Reason for ARPC Transfer:	Time Interval FNC&ARPC:
N-1	02	ARPC	DNA	DNA	RA=UnSatPart	TBAfMIMSO or FNC
N-2	02	AD	INA	INA	n/a	n/a
N-3	03	OFU	8/79	9/83	n/a	n/a
N-4	01m	ARPC	1/85	7/85	RA=UnSatPart	a
N-5	05	ARPC	DNA	1/67	RU=IndMobAug	h

Column 3 Subtotals for Unit N:

1 = Active duty
 1 = Other flying unit
 0 = Other non-flying unit
 3 = ARPC status

O-1	02	OFU	2/84	3/83	n/a	n/a
O-2	03m	ARPC	5/78	2/86	R3=PerReas	a

Column 3 Subtotals for Unit O:

0 = Active Duty
 1 = Other flying unit
 0 = Other non-flying unit
 1 = ARPC status

P-1	02	ARPC	11/83	3/84	R5=ReLoc	a
P-2	01	ARPC	9/84	12/84	RA=UnSatPart	b
P-3	02	ARPC	5/84	12/84	R5=ReLoc	a
P-4	02	OFU	DNA	5/85	n/a	n/a
P-5	02	ARPC	12/84	5/85	R3=PerReas	a

Column 3 Subtotals for Unit P:

0 = Active duty
 1 = Other flying unit
 0 = Other non-flying unit
 4 = ARPC status

I.D.	Rank:	Trans To:	Attend MIMSO:	FNC Date:	Reason for ARPC Transfer:	Time Interval FNC&ARPC
Q-1	03	ARPC	9/74	5/82	R3=PerReas	d
Q-2	03	OFU	4/78	12/83	n/a	n/a

Column 3 Subtotals for Unit Q:

0 = Active duty
 1 = Other flying unit
 0 = Other non-flying unit
 1 = ARPC status

R-1	02	ARPC	12/83	DNA	RA=UnSatPart	TRAFNC
R-2	02	ONFU	12/82	2/83	n/a	n/a
R-3	04	ONFU	4/69	6/72	n/a	n/a
R-4	04	ARPC	DNA	7/74	RE=Retired	h

Column 3 Subtotals for Unit R:

0 = Active duty
 0 = Other flying unit
 2 = Other non-flying unit
 2 = ARPC status

S-1	02	ARPC	2/84	5/84	RA=UnSatPart	b
S-2	03	OFU	2/81	5/85	n/a	n/a
S-3	03	OFU	1/76	12/77	n/a	n/a
S-4	02	ARPC	7/83	5/85	R5=ReLoc	b

Column 3 Subtotals for Unit S:

0 = Active duty
 2 = Other flying unit
 0 = Other non-flying unit
 2 = ARPC status

I.D.	Rank:	Trans To:	Attend MIMSO:	FNC Date:	Reason For ARPC Transfer:	Time Interval FNC&ARPC
T-1	02m	ARPC	AWOAD	9/83	RA=UnSatPart	c
T-2	01	ARPC	12/84	DNA	RA=UnSatPart	TBAFNC
T-3	02m	ARPC	10/82	6/83	RU=IndMobAug	c
T-4	03m	AD(N)	10/82	6/83	n/a	n/a

Column 3 Subtotals for Unit T:

1 = Active duty
0 = Other flying unit
0 = Other non-flying unit
3 = ARPC status

U-1	01	ARPC	DNA	DNA	RA=UnSatPart	TEAMIMSO or FNC
U-2	01	ARPC	12/85	3/86	RA=UnSatPart	a
U-3	03	ARPC	11/80	DNA	R5=ReLoc	TRAFNC
U-4	03	ARPC	1/78	5/81	R5=ReLoc	e
U-5	02	ARPC	12/83	10/84	R3=PerReas	b
U-6	02	ARPC	1/84	10/84	RA=UnSatPart	b
U-7	02	ARPC	3/84	9/84	RA=UnSatPart	b
U-8	02	ONFU	1/85	DNA	n/a	n/a
U-9	03	OFU	AWOAD	3/82	n/a	n/a
U-10	05	ARPC	3/65	7/66	RE=Retired	h

Column 3 Subtotals for Unit U:

0 = Active duty
1 = Other flying unit
1 = Other non-flying unit
8 = ARPC status

APPENDIX E

General Disposition of Flight Nurse Losses From Air Force Reserve Aeromedical Evacuation Units During FY 86

Between the end of FY 85 and the end of FY 86 there was an overall net gain of 84 flight nurses manning authorized positions in Air Force Reserve flying units. This number is the difference between the actual (or gross) number of nurses transferring from each respective flying unit and the actual (or gross) number of nurses gained by each flying unit. The data on the next page indicates disposition of each flight nurse leaving an Air Force Reserve aeromedical evacuation unit.

Unit/(I.D.)	FY86 Actual Loss	Active Duty	Number Transferred to:			
			Other AFRES A/E	Other AFRES Non-A/E	ARPC IMA Status	Other ARPC Status
31AES (A)	-22	1	1	1	3	16
40AES (B)	-12	-	2	1	-	9
65AES (C)	-19	-	4	1	1	13
68AES (D)	-19	-	2	2	1	14
69AES (E)	-13	-	3	-	3	7
72AES (F)	-18	-	3	2	1	12
60AES (G)	-5	-	-	1	1	3
73AES (H)	-7	-	-	-	5	2
32AEG (I)	-5	1	2	-	1	1
37AEG (J)	-13	-	1	1	1	10

Unit (I.D.)	Actual Loss	Active Duty	Other AFRES A/E	Other AFRES Non-A/E	ARPC IMA Status	Other ARPC Status
33AES (K)	-10	-	-	-	-	10
34AES (L)	-9	-	1	1	1	6
35AEF (M)	-7	1	1	1	2	2
36AEF (N)	-5	1	1	-	1	2
45AEF (O)	-2	-	1	-	-	1
47AEF (P)	-5	-	1	-	-	4
63AEF (Q)	-2	-	1	-	-	1
64AEF (R)	-4	-	-	2	-	2
67AEF (S)	-4	-	2	-	-	2
70AEF (T)	-4	1	-	-	1	2
74AES (U)	-10	-	1	1	-	8
TOTALS	-195	5	27	14	22	127

APPENDIX F

Reasons for Disposition of Flight Nurse Losses From Air Force Reserve Aeromedical Evacuation Units By ARPC into Non-Participatory Status During FY 86

Meaning of ARPC Action Reason Codes:

RA = Unsatisfactory participation
 RE = Retirement
 RM = Expired ready reserve agreement
 RW = Lacks qualifications/fails standards
 (involved discharge)
 R3 = Job/school conflict
 R4 = Pregnancy
 R5 = Change of residence (relocation)
 R6 = Personal hardship

Total To ARPC For Other Than IMA Status		ARPC Action Reason Codes For AFRes Flight Nurses Leaving Their Participatory Reserve Assignments During Fiscal Year 1986							
Unit/(I.D.)		RA	RE	RM	RW	R3	R4	R5	R6
31AES (A)	16	4	-	-	-	6	1	4	1
40AES (B)	9	5	-	1	1	1	-	1	-
65AES (C)	13	7	-	-	1	2	-	2	1
68AES (D)	14	1	-	-	1	5	1	4	2
69AES (E)	7	1	-	1	-	1	-	3	1
72AES (F)	12	6	-	-	1	4	-	1	-
60AES (G)	3	1	1	-	-	-	-	1	-
73AES (H)	2	-	1	-	-	-	-	1	-

Total To ARPC For Other Than IMA Status		ARPC Action Reason Codes For AFRes Flight Nurses Leaving Their Participatory Reserve Assignments During Fiscal Year 1986							
Unit/(I.D.)		RA	RE	RM	RW	R3	R4	R5	R6
32AEG (I)	1	1	-	-	-	-	-	-	-
37AEG (J)	10	5	-	-	-	2	2	1	-
33AES (K)	10	6	-	-	-	2	-	2	-
34AES (L)	6	1	-	1	-	3	-	1	-
35AEF (M)	2	-	-	-	2	-	-	-	-
36AEF (N)	2	2	-	-	-	-	-	-	-
45AEF (O)	1	-	-	-	-	1	-	-	-
47AEF (P)	4	1	-	-	-	1	-	2	-
63AEF (Q)	1	-	-	-	-	1	-	-	-
64AEF (R)	2	1	1	-	-	-	-	-	-
67AEF (S)	2	1	-	-	-	-	-	1	-
70AEF (T)	2	2	-	-	-	-	-	-	-
74AES (U)	8	4	1	-	-	1	-	2	-
TOTALS	127	49	4	3	6	30	4	26	5

APPENDIX G

Flight Nurse Losses From Air Force Reserve Aeromedical Evacuation Units During FY 86 Determinations of Turnover Rates

Between the end of FY 85 and the end of FY 86 there was an overall loss of 195 flight nurses from authorized positions in Air Force Reserve flying units. The following is a deliniation of the actual number of nurses transferring from each respective flying unit and the "turnover" gate in percentage.

*The 60 AES is tabulated separately because of its conversion from a tactical aeromedical evacuation flight to strategic aeromedical evacuation squadron during FY 1986.

Unit/(I.D.)	Number Assigned End FY85	FY86 Overall Loss	Loss From Participatory Reserve Program	True AFRes Flight Nurse Turnover Rate - %
31AES (A)	90	22	16	17.7
40AES (B)	86	12	9	10.4
65AES (C)	94	19	13	13.8
68AES (D)	87	19	14	16.0
69AES (E)	81	13	7	8.6
72AES (F)	92	18	12	13.0
60AES (G)	19*	5	3	15.7
73AES (H)	39	7	2	5.1

Unit/(I.D.)	Assigned End FY85	Overall Loss	Participatory Reserve Program	Flight Nurse Turnover Rate - %
32AEG (I)	28	5	1	3.5
37AEG (J)	40	13	10	25.0
33AES (K)	48	10	10	20.4
34AES (L)	45	9	6	13.3
35AEF (M)	26	7	2	7.6
36AEF (N)	21	5	2	9.5
45AEF (O)	18	2	1	5.5
47AEF (P)	22	5	4	18.1
63AEF (Q)	22	2	1	4.7
64AEF (R)	19	4	2	10.5
67AEF (S)	21	4	2	9.5
70AEF (T)	24	4	2	8.3
74AES (U)	50	10	8	16.0
TOTALS	972	195	127	13.0

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